San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

July 12, 2022

Mr. Douglas Shaffer
California Resources Elk Hills, LLC
900 Old River Rd
Bakersfield, CA 93311

**Re: Notice of Preliminary Decision – Title V Permit Renewal**
**Facility Number: S-2234**
**Project Number: S-1204300**

Dear Mr. Shaffer:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for California Resources Elk Hills, LLC at Section 35, Township 30S, Range 23E in Tupman, California.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the renewed Federally Mandated Operating Permit. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions, please contact Mrs. Erin Scott, Permit Services Manager, at (661) 392-5500.

Sincerely,

Brian Clements
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email
cc: Laura Yannayon, EPA (w/enclosure) via EPS

**Samir Sheikh**
Executive Director/Air Pollution Control Officer

**Northern Region**
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

www.valleyair.org www.healthyairliving.com

Printed on recycled paper.

# SAN JOAQUIN VALLEY
# AIR POLLUTION CONTROL DISTRICT

**Proposed Title V Permit Renewal Evaluation**
**California Resource Elk Hills, LLC**
**S-2234**

## TABLE OF CONTENTS


I. PROPOSAL ..... 2
II. FACILITY LOCATION ..... 2
III. EQUIPMENT LISTING ..... 3
IV. GENERAL PERMIT TEMPLATE USAGE ..... 3
V. SCOPE OF EPA AND PUBLIC REVIEW ..... 3
VI. FEDERALLY ENFORCEABLE REQUIREMENTS ..... 3
VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE ..... 6
VIII. PERMIT REQUIREMENTS ..... 7
IX. PERMIT SHIELD ..... 16
X. CALIFORNIA ENVIRONMENTAL QUALITY ACT ..... 16
XI. PERMIT CONDITIONS ..... 16

ATTACHMENTS ..... 16

A. DRAFT RENEWED TITLE V OPERATING PERMIT
B. PREVIOUS TITLE V OPERATING PERMIT
C. DETAILED SUMMARY LIST OF FACILITY PERMITS

# TITLE V PERMIT RENEWAL EVALUATION

**Natural Gas Processing Facility**

**Engineer:** Thomas Aguirre
**Date:** May 2, 2022

**Facility Number:** S-2234
**Facility Name:** California Resources Elk Hills, LLC
**Mailing Address:** 900 Old River Rd, Bakersfield, CA 93311

**Contact Name:** Douglas Shaffer
**Phone:** 661-809-5842

**Responsible Official:** Raymond Rodriguez
**Title:** Director Health, Safety and Environmental

**Project # :** 1204300
**Deemed Complete:** 11/17/20

---

## I. PROPOSAL

California Resources Elk Hills, LLC was issued a Title V permit on April 30, 1999. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit shall be reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the issuance of the initial Title V permit.

The purpose of this evaluation is to provide the legal and factual basis for all updated applicable requirements and to determine if the facility will comply with these updated requirements. It also specifically identifies all additions, deletions, and/or changes made to permit conditions or equipment descriptions.

## II. FACILITY LOCATION

California Resources Elk Hills, LLC gas plant is located at Section SE 35, Township 30S, Range 23E in Tupman, CA.

# III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is included as Attachment C.

# IV. GENERAL PERMIT TEMPLATE USAGE

The applicant does not propose to use any model general permit templates.

# V. SCOPE OF EPA AND PUBLIC REVIEW

The applicant is not requesting any model general permit templates. Therefore, all federally enforceable conditions in this current Title V permit will be subject to EPA and public review.

# VI. FEDERALLY ENFORCEABLE REQUIREMENTS

## A. Rules Updated

- District Rule 2201, New and Modified Stationary Source Review Rule (amended August 15, 2019)
- District Rule 2520, Federally Mandated Operating Permits (amended August 15, 2019)
- District Rule 4306, Boilers, Steam Generators, and Process Heaters – Phase 3 (amended December 17, 2020)
- District Rule 4311, Flares (December 17, 2020)
- District Rule 4320, Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr (amended December 17, 2020)
- District Rule 4601, Architectural Coatings (April 16, 2020)
- District Rule 4702, Internal Combustion Engines (amended August 19, 2021)
- 40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (July 29, 2021)
- 40 CFR Part 60 Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines ( amended June 29, 2021)

- 40 CFR Part 60 Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (amended September 14, 2020)

- 40 CFR 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (amended December 4, 2020)

**B. Rules Removed**

There are no applicable rules that were removed since the last Title V renewal.

**C. Rules Added**

There are no applicable rules that were added since the last Title V renewal.

**D. Rules Not Updated**

- District Rule 1070, Stack Monitoring (amended December 17, 1992)

- District Rule 1080, Stack Monitoring (amended December 17, 1992)

- District Rule 1081, Source Sampling (amended December, 1993)

- District Rule 1100, Equipment Breakdown (amended December 17,1992)

- District Rule 2010, Permits Required (amended December 17, 1992)

- District Rule 2031, Transfer of Permits (amended December 17, 1992)

- District Rule 2040, Applications (amended December 17, 1992)

- District Rule 2070, Standards for Granting Applications (amended December 17, 1992)

- District Rule 2080, Conditional Approval (amended December 17, 1992)

- District Rule 2410, Prevention of Significant Deterioration (November 26, 2012)

- District Rule 4101, Visible Emissions (amended February 17, 2005)

- District Rule 4201, Particulate Matter Concentration (December 17, 1992)

- District Rule 4301, Fuel Burning Equipment (December 17, 1992)
- District Rule 4305, Boilers, Steam Generators, and Process Heaters – Phase 2 (August 21, 2003)
- District Rule 4408, Glycol Dehydration Systems (December 19, 2002)
- District Rule 4409, Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities and Natural Gas Processing Facilities (April 20,2005)
- District Rule 4623, Storage of Organic Liquids (May19, 2005)
- District Rule 4624, Transfer of Organic Liquids (December 20, 2007)
- District Rule 4701, Internal Combustion Engines – Phase 1 (August 21, 2003)
- District Rule 4703, Stationary Gas Turbines (September 20, 2007)
- District Rule 4801, Sulfur Compounds (December 17, 1992)
- District Rule 8011, Fugitive Dust General Requirements (amended August 19, 2004)
- District Rule 8021, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Construction, Demolition, Excavation, and Extraction Activities (amended August 19, 2004)
- District Rule 8031, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Handling and Storage of Bulk Materials (amended August 19, 2004)
- District Rule 8041, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Carryout and Trackout (amended August 19, 2004)
- District Rule 8051, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Open Area (amended August 19, 2004)
- District Rule 8061, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Paved and Unpaved Roads (amended August 19, 2004)

- District Rule 8071, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Unpaved Vehicle/Equipment Areas (amended September 16, 2004)

- 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos (amended July 20, 2004)

- 40 CFR Part 60, Subpart GG, Standards of Performance for Stationary Gas Turbines (August 16, 2012)

- 40 CFR Part 60 Subpart KKK, Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants (October 17, 2000)

- 40 CFR Part 64, Compliance Assurance Monitoring (October 22, 1997)

- 40 CFR Part 72, Permits Regulation (January 11, 1993)

## VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits. The terms and conditions that are part of the facility's Title V permit are designated as "Federally Enforceable Through Title V Permit".

For this facility, the following are not federally enforceable and will not be discussed in further detail:

### A. Rules Added/Updated

There are no new rules that are not federally enforceable that have been added during this review period.

### B. Rules Not Updated

District Rule 4102, Nuisance (as amended December 17, 1992)

The following conditions are based on District Rule 4102. No changes have been made to the rule, so there is no further discussion required.

| Permit Unit | Condition(s) |
|---|---|
| -0 (facility-wide permit) | #83 |

# VIII. PERMIT REQUIREMENTS

The purpose of this evaluation is to review changes to federally enforceable requirements; therefore, this compliance section will only address rules that have been amended or added since the issuance of the initial Title V permit or most recent renewal of the Title V permit.

## A. District Rule 2201 - New and Modified Stationary Source Review Rule

District Rule 2201 has been amended since this facility's initial Title V permit was issued. However, the requirements of this rule are only triggered at the time the source undergoes a modification. All applicable requirements from any NSR permit actions have already been incorporated into the current Title V permit.

## B. District Rule 2520 - Federally Mandated Operating Permits

No changes to this Rule have occurred since issuance of the previous TV permit; however, greenhouse gas emissions will be addressed under Rule 2520 during this renewal.

Greenhouse Gas Discussion

There are no federally applicable Greenhouse Gas (GHG) requirements for this source. It should be noted that the Mandatory Greenhouse Gas Reporting rule (40 CFR Part 98) is not included in the definition of an applicable requirement within Title V (per 40 CFR 71.2). Therefore, there will be no further discussion of GHG in this evaluation.

## C. District Rule 4306 – Boilers, Steam Generators, and Process Heaters – Phase 3

This rule limits NOx and CO emission from boilers, steam generators, and process heaters. The Rule is applicable to gaseous or liquid fuel-fired boilers, steam generators, or process heaters with a heat input greater than 5 million Btu per hour.

The rule was amended on December 17, 2020. The amended rule requires boilers, steam generators, and process heaters to meet the applicable NOx and CO limits listed in Table 2 on or after December 31, 2023 or December 31, 2029, depending on the category of the unit. The facility must submit an

emission control plan and apply for Authority to Construct permits to modify their units subject to this Rule by May 1, 2022 or May 1, 2028, to comply with the revised emission limits.

The only units at this facility (S-2234-1-20, '-3-21, '-247-3) subject to this rule comply with the current emission limit requirements of Rule 4306 listed in Table 1. Table 2 requirements are not in effect yet. Therefore, no changes to the permits are required to the permits at this time. An Authority to Construct and emission control plan will need to be submitted in the future to address the Table 2 emission limits, as applicable to each unit.

**D. District Rule 4311 – Flares**

The purpose of this rule is to limit the emissions of volatile organic compounds (VOC), oxides of nitrogen (NOx), and sulfur oxides (SOx) from the operation of flares. This rule applies to all operations involving the use of flares.

The rule was amended December 17, 2020. The amended rule requires flares to meet lower applicable NOx and VOC emission requirements by establishing industry dependent annual throughput thresholds. Additionally, NOx and VOC limits for flares exceeding the annual throughput thresholds were established by requiring ultra-low NOx flare technology implementation. All facilities must apply for Authority to Construct to modify their units subject to this Rule by July 1, 2022 to comply with the revised emission limits.

The only units at this facility (S-2234-8-6, '-14-6, '-204-5, '-205-5, '-235-5, '-250-0) subject to this rule comply with the current emission limit requirements of Rule 4311. The amended requirements are not in effect yet. Therefore, no changes to the permits are required at this time. An Authority to Construct will need to be submitted at a future date to address the new emissions limits. Compliance is expected.

**E. District Rule 4320 - Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr**

This rule limits NOx, CO, SO2, and PM10 emissions from boilers, steam generators, and process heaters. The rule is applicable to gaseous or liquid fuel-fired boilers, steam generators, or process heaters with a heat input greater than 5 million Btu per hour.

The rule was amended on December 17, 2020. The amended rule requires units subject to the rule to meet the applicable NOx limits listed in Table 2 on or after December 31, 2023. The facility must submit an emission control plan

and apply for Authority to Construct permits to modify their permit for units subject to this Rule by May 1, 2022 to comply with the revised emission limits.

The only units at this facility (S-2234-1-20, '-3-21, '-247-3) subject to this rule comply with Rule 4320 current emissions limits. An Authority to Construct will be submitted at a future date to address new emissions limits. Therefore, no changes to the permits will be required at this time, continued compliance is expected.

## F. District Rule 4601 – Architectural Coatings

This rule limits the emissions of VOCs from architectural coatings, and it specifies architectural coatings storage, cleanup, and labeling requirements.

This rule was amended on April 16, 2020. The amendments to the rule include the following:

- Numerous definitions was added, deleted or modified in order to make the amended rule harmonize with definitions and rule requirements presented in the California Air Resources Board (ARB) Suggested Control Measures (SCM).
- The amended rule implements the recommended VOC limits per the ARB SCM. The following changes were as follows: 15 coating categories were eliminated, ten were added, nineteen coatings categories remained unchanged, and the VOC content limits for 19 categories were lowered.
- The phrase "blends or repackages" was added to rule language to extend the applicability of rule language to facilities involved in those activities.
- A reporting requirement was added for any architectural coating that is sold in a container with a volume of one liter or less. The exemption for architectural coatings was further defined by adding "coatings that are supplied and offered for sale" to current language, in order to make the rule consistent with the ARB SCM.
- Labeling requirements were updated to add new labeling standards consistent with new coatings categories per the SCM.
- A new section was added to include reporting requirements per the SCM. The SCM contains a new requirement to submit sales data. Collection of this data is authorized in the California Health and Safety Code which requires submission of data to estimate emissions.
- New sections were added to coincide with new coating categories pursuant to the ARB SCM.
- The compliance schedule was updated to account for the new amendments to rule language by adding the phrase "the dates specified within the text of the rule."

The only reference to this rule is in the facility-wide permit (S-2234-0-4), specifically by conditions #65 through 67 and 82. The following existing conditions have been revised as shown in strikethrough/underline to reflect the changes to rule 4601 as follows:

65. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in ~~Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11~~ Table 1 or Table 2 of District Rule 4601 (~~12/17/09~~ 4/16/20) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit

66. All VOC-containing materials subject to Rule 4601 (~~12/17/09~~ 4/16/20) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit

67. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (~~12/17/09~~ 4/16/20). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit

82. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (~~12/17/09~~ 4/16/20); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

Therefore, continued compliance with this rule is expected.

## G. District Rule 4702 – Internal Combustion Engines

The purpose of this rule is to limit the emissions of nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOC), particulate matter (PM), and sulfur oxides (SOx) from internal combustion engines. This rule applies to all IC (Internal Combustion) engines rated at 25 brake horsepower or greater.

There are 68 permitted engines at this facility, 6 of which are emergency IC engines (S-2234-38-4, '-43-8, '-104-5, '-170-5, '-173-4, '-206-4). Pursuant to Rule 4702 Section 4.2, the only requirements that apply to emergency standby engines are the requirements of Section 5.10 (monitoring requirements) and 6.2.3 (annual operating records requirements), which were left unchanged

during the rule amendment. Therefore, with respect to these 6 engines, no further discussion is required.

The remaining 62 units, found in the table below, are full-time spark-ignited natural gas-fired engines powering gas compressors. The changes to this rule affect only spark-ignited IC engines and requires submission of an ATC by August 1, 2022 to demonstrate compliance with the rule by December 31, 2023. At this time the engines are currently in compliance and no further discussion is required.

| | | | |
|---|---|---|---|
| S-2234-9-16 | S-2234-10-16 | S-2234-11-16 | S-2234-12-13 |
| S-2234-15-14 | S-2234-16-14 | S-2234-17-14 | S-2234-18-13 |
| S-2234-29-21 | S-2234-30-19 | S-2234-31-21 | S-2234-46-11 |
| S-2234-47-11 | S-2234-48-11 | S-2234-57-19 | S-2234-58-21 |
| S-2234-59-20 | S-2234-60-15 | S-2234-61-19 | S-2234-62-19 |
| S-2234-63-19 | S-2234-64-17 | S-2234-65-17 | S-2234-66-17 |
| S-2234-67-19 | S-2234-68-19 | S-2234-69-19 | S-2234-70-22 |
| S-2234-71-22 | S-2234-72-19 | S-2234-73-19 | S-2234-74-19 |
| S-2234-75-15 | S-2234-76-13 | S-2234-77-14 | S-2234-78-18 |
| S-2234-79-18 | S-2234-80-12 | S-2234-81-12 | S-2234-82-16 |
| S-2234-83-15 | S-2234-84-14 | S-2234-85-14 | S-2234-86-13 |
| S-2234-126-9 | S-2234-129-9 | S-2234-130-8 | S-2234-131-10 |
| S-2234-132-10 | S-2234-134-9 | S-2234-135-10 | S-2234-136-10 |
| S-2234-137-9 | S-2234-182-5 | S-2234-183-5 | S-2234-185-5 |
| S-2234-186-5 | S-2234-187-5 | S-2234-211-5 | S-2234-212-8 |
| S-2234-214-8 | S-2234-215-4 | | |

**H. 40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

The requirements of this subpart apply to: (1) manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in Section 60.4200.

a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

    1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

i. 2007 or later, for engines that are not fire pump engines;
ii. The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

i. Manufactured after April 1, 2006, and are not fire pump engines, or
ii. Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

4) The provisions of § 60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

Five of the six permitted CI engines are not subject to this rule as construction commenced before July 11, 2005. The remaining CI engine, S-2234-206-4, is subject to this subpart. Only sections of the Rule amended since February 2017 that pertain to owners and operators of CI engines will be evaluated.

**§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

This section was amended on June 29, 2021. The amendments relate to companies that manufacture, sell, or import into the United States new heavy-duty engines or Class 2b through 8 trucks, including combination tractors, vocational vehicles, all types of buses and nonroad engines. This rule includes amendments that are generally administrative or technical in nature with respect to nonroad engines. There were two amendments adopted with the modification of this section they are listed below:

- Marine engines must comply with requirements of 40 CFR part 1042, appendix I instead of 40 CFR 94
- Engines with auxiliary emission control devices (AECDs) must meet Tier 1 certification emission standards for new nonroad engines in 40 CFR part 1039, appendix I instead of 40 CFR 89.112.

These administrative amendments are not applicable to this engine as it is not a marine engine and does not have an AECD, no further discussion is required.

**§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

This section was amended on June 29, 2021. Similar to the Section §60.4202 above, the sole amendment to this section applied to marine engines and is not applicable to this unit. Additionally, this engine continues to meet Tier 2 emission standards, no further discussion is required.

**§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?**

This section was amended December 4, 2020. This action updates many of EPA's existing gasoline, diesel, and other fuel quality programs to improve overall compliance assurance and maintain environmental performance, while reducing compliance costs for industry and EPA. EPA is streamlining existing fuel quality regulations by removing expired provisions and eliminating redundant compliance provisions. This action does not change the stringency of the existing fuel quality standards. These amendments are strictly administrative in nature. The fuel used in this engine complies with the standards of this section, continued compliance with this rule is expected.

**§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

This section was updated June 29, 2021. This section requires CI engine owners or operators to:

- Comply with manufacturers operating instructions
- Comply with emissions standards
- Demonstrate compliance via prescribed methods
- Operate less than 50 hours for non-emergency situations

This permitted unit has conditions meeting these requirement, continued compliance is expected. All amendments to this section are administrative in nature. No changes affect this unit, no further discussion is required.

**§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?**

This section was amended June 29, 2021. Similar to section 60.4207 above, all updates are administrative in nature and do not require any permit changes. Continued compliance is expected.

**I. 40 CRF Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark ignition Internal Combustion Engines**

Pursuant to §60.4320(a)(5), the provisions of this subpart are applicable to owners and operators of stationary spark ignitions IC engines (ICE) that have modified or reconstructed any stationary source spark ignited ICE after June 12, 2006. The spark ignited units listed in the table above (Section G) were not modified or reconstructed after June 12, 2006 and/or are transportable and are not subject to this rule, therefore this subpart is not applicable.

**J. 40 CFR Part 60 Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution**

This facility has the potential for inclusion of this subpart for the use of permitted tanks, however the facility is not affected per section §60.5365(e) which applies only to tanks with VOC emissions equal to or greater than 6 tons per year, therefore the requirements of this subpart are not applicable.

**K. 40 CFR 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (HAP) for Stationary Reciprocating Internal Combustion Engines (RICE)**

This subpart applies to any source that is an existing, new or reconstructed stationary RICE located at a major or area source for HAP emissions. This facility is an area source for HAP emissions with several RICE units and is therefore subject to this subpart.

The most recent amendment (85 FR 78463 12/4/20) to the rule updates many of EPA's existing gasoline, diesel, and other fuel quality programs to improve overall compliance assurance and maintain environmental performance, while reducing compliance costs for industry and EPA. EPA is streamlining existing fuel quality regulations by removing expired provisions, eliminating redundant compliance provisions (*e.g.,* duplicative registration requirements that are required by every EPA fuels program), removing unnecessary and out-of-date requirements, and replacing them with a single set of provisions and definitions that applies to all gasoline, diesel, and other fuel quality programs. This action does not change the stringency of the existing fuel quality standards. No updates are required for this amendment.

An additional amendment to this subpart (85 FR 73854, 11/19/20) finalizes amendments to the General Provisions that apply to National Emission

Standards for Hazardous Air Pollutants (NESHAP). These amendments implement the plain language reading of the "major source" and "area source" definitions of section 112 of the Clean Air Act (CAA) and provide that a major source can be reclassified to area source status at any time upon reducing its potential to emit (PTE) hazardous air pollutants (HAP) to below the major source thresholds (MST) of 10 tons per year (tpy) of any single HAP and 25 tpy of any combination of HAP. This rule also finalizes amendments to clarify the compliance dates, notification, and recordkeeping requirements that apply to sources choosing to reclassify to area source status and to sources that revert back to major source status, including a requirement for electronic notification. Since all changes are administrative in nature and this facility is not choosing to reclassify its status there are no permit changes necessary for this update at this time.

No further updates were discovered, continued compliance is expected and no further discussion is required.

## L. 40 CFR Part 64 – Compliance Assurance Monitoring

40 CFR Part 64 requires Compliance Assurance Monitoring for units that meet the following three criteria:

1) the unit must have an emission limit for the pollutant;
2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
3) the unit must have a pre-control potential to emit of greater than the major source thresholds.

| Pollutant | Major Source Threshold (lb/year) |
|---|---|
| $NO_X$ | 20,000 |
| $SO_X$ | 140,000 |
| $PM_{10}$ | 140,000 |
| CO | 200,000 |
| VOC | 20,000 |

This regulation was last amended on October 22, 1997; however, the Rule 2201 Major Source thresholds for NOx and VOC were lowered from 50,000 to 20,000 lb/year via a December 18, 2008 amendment to Rule 2201. A previous Title V renewal (2011) evaluated the permits at the 20,000 lb/yr NOx and VOC thresholds; consequently, a CAM discussion will not be required for this renewal.

# IX. PERMIT SHIELD

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

## A. Requirements Addressed by Model General Permit Templates

The applicant does not propose to use any model general permit templates.

# X. CALIFORNIA ENVIRONMENTAL QUALITY ACT

The purpose of the Title V permit renewal is to update the permit to ensure that any changes to regulations since the issuance of the initial Title V permit or most recent renewal of the Title V permit are incorporated as permit requirements.

Per the California Environmental Quality Act (CEQA) Statute §21080.24, and CEQA Guidelines §15281, the issuance, modification, amendment, or renewal of any permit by an air pollution control district or air quality management district pursuant to Title V is exempt from CEQA, unless the issuance, modification, amendment, or renewal authorizes a physical or operational change to a source or facility. There will be no physical or operational change to the source or facility nor will the Title V permit renewal authorize a physical or operational change to the source or facility. Therefore, this project, a Title V permit renewal, is subject to a ministerial action that is exempt from CEQA.

# XI. PERMIT CONDITIONS

See Attachment A - Draft Renewed Title V Operating Permit.

# ATTACHMENTS

A. Draft Renewed Title V Operating Permit
B. Previous Title V Operating Permit
C. Detailed Summary List of Facility Permits

# ATTACHMENT A

## Draft Renewed Title V Operating Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-187-6 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (R-41)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. Annual fuel consumption for this natural gas-fired engine shall not exceed 104.6 MMScf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain annual records of fuel consumption, in MMScf, to show compliance with the annual fuel consumption limit of 104.6 MMScf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
7. The permittee shall install and operate a nonresettable elapsed operating time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
8. The permittee shall install and operate a nonresettable fuel flow meter to determine annual fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 0.07 g-NOx/hp-hr, 0.0094 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 0.475 g-CO/hp-hr, or 0.121 g-VOC/hp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last calendar quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

15. Source testing to measure gas combustion NOx, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit

16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. PM10 emission rate shall be reported in grams/bhp-hr. [District Rule 4702] Federally Enforceable Through Title V Permit

18. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, PM10 - EPA Method 19, and VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made readily available for District inspection upon request. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-186-6 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (R-40)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201, 4702, 5.7.1, and 4801] Federally Enforceable Through Title V Permit
4. Annual fuel consumption for this natural gas-fired engine shall not exceed 104.6 MMScf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain annual records of fuel consumption, in MMScf, to show compliance with the annual fuel consumption limit of 104.6 MMScf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
7. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
8. The permittee shall install and operate a nonresettable fuel flow meter to determine annual fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 0.07 g-NOx/hp-hr, 0.0094 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 0.475 g-CO/hp-hr, or 0.121 g-VOC/hp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

15. Source testing to measure gas combustion NOx and CO emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit

16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NOx and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit

18. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-185-6 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (R-39)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201, 4702, 5.7.1, and 4801] Federally Enforceable Through Title V Permit
4. Annual fuel consumption for this natural gas-fired engine shall not exceed 104.6 MMScf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain annual records of fuel consumption, in MMScf, to show compliance with the annual fuel consumption limit of 104.6 MMScf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
7. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
8. The permittee shall install and operate a nonresettable fuel flow meter to determine annual fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 0.07 g-NOx/hp-hr, 0.0094 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 0.475 g-CO/hp-hr, or 0.121 g-VOC/hp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing to measure gas combustion NOx and CO emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NOx and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-184-6 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (R-38)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201, 4702, 5.7.1, and 4801] Federally Enforceable Through Title V Permit
4. Annual fuel consumption for this natural gas-fired engine shall not exceed 104.6 MMScf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain annual records of fuel consumption, in MMScf, to show compliance with the annual fuel consumption limit of 104.6 MMScf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
7. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
8. The permittee shall install and operate a nonresettable fuel flow meter to determine annual fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 0.07 g-NOx/hp-hr, 0.0094 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 0.475 g-CO/hp-hr, or 0.121 g-VOC/hp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing to measure gas combustion NOx and CO emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NOx and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-183-6 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (K-147)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201, 4702, 5.7.1, and 4801] Federally Enforceable Through Title V Permit
4. Annual fuel consumption for this natural gas-fired engine shall not exceed 104.6 MMScf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain annual records of fuel consumption, in MMScf, to show compliance with the annual fuel consumption limit of 104.6 MMScf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
7. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
8. The permittee shall install and operate a nonresettable fuel flow meter to determine annual fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 0.07 g-NOx/hp-hr, 0.0094 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 0.475 g-CO/hp-hr, or 0.121 g-VOC/hp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing to measure gas combustion NOx and CO emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NOx and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-182-6 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (K-151)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201, 4702, 5.7.1, and 4801] Federally Enforceable Through Title V Permit
4. Annual fuel consumption for this natural gas-fired engine shall not exceed 104.6 MMScf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain annual records of fuel consumption, in MMScf, to show compliance with the annual fuel consumption limit of 104.6 MMScf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
7. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
8. The permittee shall install and operate a nonresettable fuel flow meter to determine annual fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 0.07 g-NOx/hp-hr, 0.0094 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 0.475 g-CO/hp-hr, or 0.121 g-VOC/hp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing to measure gas combustion NOx and CO emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NOx and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-181-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-20) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-180-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-19) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-173-5 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
300 HP JOHN DEERE MODEL 6081HF070 DIESEL FIRED EMERGENCY IC ENGINE POWERING FIRE WATER PUMPS AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. The PM10 emissions rate shall not exceed 0.15 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District NSR Rule, District Rule 4102, 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. Emissions from this IC engine shall not exceed any of the following limits: 4.9 g-NOx/bhp-hr, 2.61 g-CO/bhp-hr, or 0.4 g-VOC/bhp-hr. [District NSR Rule, 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
6. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per year. [District NSR Rule, District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
8. During periods of maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emissions control system supplier (e.g. oil pressure, exhaust gas temperature, etc.). [District Rule 4702] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the number of hours of operation, the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.), the type of fuel used, and records of operational characteristics monitoring. Such records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Approved locations for this equipment: any site within facility S-2234. [District NSR Rule] Federally Enforceable Through Title V Permit
12. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE



DRAFT

13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate matter emissions shall not exceed in concentration at the point of discharge 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera County) and Rule 404 (Kern County)] Federally Enforceable Through Title V Permit
15. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District NSR Rule, District Rule 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
16. The operator shall maintain copies of all fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
17. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD: District Rule 4201 and Kern County 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
18. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: Kern County Rule 404. A permit shield is granted from this requirement. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. Upon implementation of this ATC, PTO S-2234-39 shall be surrendered to the District and the associated equipment permanently removed from service. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [0 CFR 63 Subpart ZZZZ ]] Federally Enforceable Through Title V Permit
26. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

27. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-172-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 3 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
GLYCOL DEHYDRATION OPERATION INCLUDING 1.5 MMBTU/HR BURNER, A GLYCOL SURGE TANK, FLASH VESSEL AND GLYCOL REBOILER VENT, A LEAN/RICH GLYCOL EXCHANGER, AND VARIOUS PUMPS AND FILTERS WITH PROCESS VENT CONNECTED TO VACUUM GAS GATHERING SYSTEM

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Glycol reboiler heater shall be fired on natural gas containing no more than 0.75 gr S/100 scf and no more than 5% by weight hydrocarbons heavier that butane. [District Rule 2020] Federally Enforceable Through Title V Permit
2. Only glycol shall be used as the dehydration medium. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Flash tank and dehydrator vent shall be vented to gas gathering system. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
4. Condensate handling shall be conducted in closed systems resulting in fugitive component emissions only. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The glycol dehydration system shall not be operated unless all vapors are directed to the vapor recovery system, a fuel gas system or a sales gas system, or a system in which VOC emissions are combusted by a flare, incinerator, reboiler, or thermal oxidizer. [District Rule 4408, 5.1] Federally Enforceable Through Title V Permit
6. The condensed hydrocarbon liquid stream from the glycol dehydration vent shall be stored and handled in a manner that will not cause or allow evaporation of VOC to the atmosphere. [District Rule 4408, 5.2] Federally Enforceable Through Title V Permit
7. A leak is defined as the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs or a reading as methane in excess of 10,000 ppm above background when measured in accordance with EPA Method 21. [District Rule 4408, 3.8.1] Federally Enforceable Through Title V Permit
8. All control systems shall be maintained in a leak-free condition as determined by EPA Method 21. [District Rule 4408, 5.3] Federally Enforceable Through Title V Permit
9. VOC control efficiency shall be no less than 95% by weight. [District Rule 4408, 5.1] Federally Enforceable Through Title V Permit
10. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.6 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
11. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
12. The operator shall maintain monthly records of the amount of gas dehydrated (MMSCF). [District Rule 4408, 6.1.1] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The operator of any glycol dehydration system shall maintain the following records: facility name and APCD permit number; description of any installed VOC control system; flow diagram of dehydrator and any VOC controls; and maintenance records of the VOC control system. [District Rule 4408, 6.1.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-170-6 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NE-35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
99 BHP CUMMINS MODEL 4BTA 3.9-G5 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING POTABLE WATER PUMPS

DRAFT

## PERMIT UNIT REQUIREMENTS

1. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (except for a flapper type rain cap), roof overhang, or any other obstruction. [District Rule 4102]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. Emissions from this IC engine shall not exceed any of the following limits: 4.71 g-NOx/bhp-hr, 0.37 g-CO/bhp-hr, or 0.36 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. The PM10 emissions rate shall not exceed 0.15 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201, 4102, and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201 and 4702, 4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
9. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
10. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
11. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
13. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rules 2520, 9.4.2 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
14. The permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
15. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
16. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
17. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [0 CFR 63 Subpart ZZZZ ]] Federally Enforceable Through Title V Permit
20. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-167-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 31 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-124) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-166-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 31 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-123) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-165-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 12 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-122) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-164-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 36 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-121) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-163-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-120) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-162-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 34 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-119) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-161-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 10 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-118) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-160-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 09 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-117) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-159-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 04 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-116) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-158-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-115) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-157-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 06 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-114) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-154-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 03 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-113) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-153-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 03 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-112) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-152-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 03 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-111) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-151-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 03 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-110) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-150-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 03 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-109) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-147-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 17 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-108] AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-145-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 25 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-106) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-144-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-105) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-143-6 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-104) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-142-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 26 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-103) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-141-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 03 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-95) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-140-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 28 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (R-24) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-139-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 28 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (R-23) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-137-10 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 27 **TOWNSHIP:** 30S **RANGE:** 23E

DRAFT

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-35) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 4702] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
7. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
8. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
12. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit

15. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit

16. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit

17. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

18. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702] Federally Enforceable Through Title V Permit

19. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months unless the unit is in dormant status. [District Rule 2201 and 4702] Federally Enforceable Through Title V Permit

20. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

24. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

26. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

27. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

28. Alternate monitoring shall not be required while unit is in dormant status, but shall resume upon recommencing operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

29. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

30. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

31. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

33. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

34. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

35. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-136-11 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

DRAFT

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-34) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. {4562} Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. {4560} While dormant, normal source testing shall not be required. [District Rule 2080]
4. {4563} Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. {4564} Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. {4565} Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
12. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
18. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
19. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit
20. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
22. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
23. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
27. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit
29. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

32. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

35. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

36. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

37. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

38. All records shall be maintained, retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-135-11 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

DRAFT

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-33) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
11. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE



DRAFT

14. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
18. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit
19. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
21. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
23. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
26. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
27. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit
28. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

30. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

31. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

32. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

33. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

34. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

35. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

36. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

37. All records shall be maintained, retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-134-10 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR K-152) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
12. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
15. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
18. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
19. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit
20. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
22. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
23. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
27. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

30. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

32. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

33. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

34. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

35. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

36. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

44. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

45. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

46. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

47. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

48. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-132-11 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 26 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (K-154) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. {4562} Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. {4560} While dormant, normal source testing shall not be required. [District Rule 2080]
4. {4563} Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. {4564} Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. {4565} Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
12. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
18. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
19. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit
20. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
22. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
23. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
27. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit
29. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

32. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

46. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

47. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

48. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-131-11 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 26 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR K-153) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

DRAFT

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. {4562} Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. {4560} While dormant, normal source testing shall not be required. [District Rule 2080]
4. {4563} Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. {4564} Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. {4565} Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
12. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
18. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
19. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit
20. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
22. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
23. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
27. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit
29. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

32. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

33. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

34. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

35. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

36. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

44. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

45. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

46. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

47. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

48. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-130-9 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 28 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (K-150) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
4. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
9. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

15. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit

16. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit

20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

21. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE



DRAFT

26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

29. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

30. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

31. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

32. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

33. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

34. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

35. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

36. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-129-10 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (K-149) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
4. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
9. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr [District Rule 2201] Federally Enforceable Through Title V Permit
11. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

15. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit

16. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit

20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

21. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

DRAFT

26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.1 and 5.6.9] Federally Enforceable Through Title V Permit

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

29. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

30. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

31. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

32. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

33. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

34. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

35. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

36. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-126-10 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-21) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. (Adjust as necessary) [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
12. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit

15. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit

16. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

17. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit

18. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit

19. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit

20. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

21. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702] Federally Enforceable Through Title V Permit

22. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months unless the unit is in dormant status. [District Rule 2201 and 4702] Federally Enforceable Through Title V Permit

23. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

27. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

30. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

31. Alternate monitoring shall not be required while unit is in dormant status, but shall resume upon recommencing operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

32. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

33. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

34. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

35. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

36. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

37. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

38. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. All records shall be maintained, retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-122-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
GLYCOL DEHYDRATION SKID MOUNTED UNIT WITH A GLYCOL CONTACTOR, SEPARATOR COALESCER, SEVERAL GLYCOL HEAT EXCHANGERS, REBOILER/REGENERATOR EQUIPPED WITH 1.5 MMBTU/HR BURNER, GLYCOL SURGE TANK, FLASH SEPARATOR, LEAN/RICH GLYCOL EXCHANGER, VARIOUS PUMPS AND FILTERS, WITH PROCESS VENT CONNECTED TO EXISTING VACUUM GAS GATHERING SYSTEM

## PERMIT UNIT REQUIREMENTS

1. Glycol reboiler heater shall be fired on natural gas containing no more than 0.75 gr S/100 scf and no more than 5% by weight hydrocarbons heavier that butane. [District Rule 2020] Federally Enforceable Through Title V Permit
2. Only glycol shall be used as the dehydration medium. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Flash tank and dehydrator vent shall be vented to gas gathering system. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
4. Condensate handling shall be conducted in closed systems resulting in fugitive component emissions only. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The glycol dehydration system shall not be operated unless all vapors are directed to the vapor recovery system, a fuel gas system or a sales gas system, or a system in which VOC emissions are combusted by a flare, incinerator, reboiler, or thermal oxidizer. [District Rule 4408, 5.1] Federally Enforceable Through Title V Permit
6. The condensed hydrocarbon liquid stream from the glycol dehydration vent shall be stored and handled in a manner that will not cause or allow evaporation of VOC to the atmosphere. [District Rule 4408, 5.2] Federally Enforceable Through Title V Permit
7. A leak is defined as the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs or a reading as methane in excess of 10,000 ppm above background when measured in accordance with EPA Method 21. [District Rule 4408, 3.8.1] Federally Enforceable Through Title V Permit
8. All control systems shall be maintained in a leak-free condition as determined by EPA Method 21. [District Rule 4408, 5.3] Federally Enforceable Through Title V Permit
9. VOC control efficiency shall be no less than 95% by weight. [District Rule 4408, 5.1] Federally Enforceable Through Title V Permit
10. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.5 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
11. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
12. The operator shall maintain monthly records of the amount of gas dehydrated (MMSCF). [District Rule 4408, 6.1.1] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The operator of any glycol dehydration system shall maintain the following records: facility name and APCD permit number; description of any installed VOC control system; flow diagram of dehydrator and any VOC controls; and maintenance records of the VOC control system. [District Rule 4408, 6.1.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-121-4 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
90,000 GALLON PRESSURIZED NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12953

## PERMIT UNIT REQUIREMENTS

1. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
2. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in District Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in District Rule 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-120-4 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12950

## PERMIT UNIT REQUIREMENTS

1. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
2. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in District Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in District Rule 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-119-4 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
96,604 GALLON NATURAL GASOLINE AND BUTANE STORAGE BULLET TANK

## PERMIT UNIT REQUIREMENTS

1. The tank shall not vent directly to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
3. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-118-4 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
96,604 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK

## PERMIT UNIT REQUIREMENTS

1. The tank shall not vent directly to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
3. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in District Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in District Rule 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-117-4 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12966

## PERMIT UNIT REQUIREMENTS

1. The tank shall not vent directly to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
3. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in DIstrict Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in District Rule 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-116-4 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12956

## PERMIT UNIT REQUIREMENTS

1. The tank shall not vent directly to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
3. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in District Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in District Rule 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-115-4 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12955

## PERMIT UNIT REQUIREMENTS

1. The storage tank shall not vent directly to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
3. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-114-4 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12954

DRAFT

## PERMIT UNIT REQUIREMENTS

1. The storage tank shall not vent directly to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
3. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in District Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in District Rule 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-111-7 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-93), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS AND 1 OFF SKID GAS COOLER

DRAFT

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-110-7 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-92), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS AND 1 OFF SKID GAS COOLER

DRAFT

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-109-7 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-91), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS AND 1 OFF SKID GAS COOLER

DRAFT

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-108-7 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-90), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS AND 1 OFF SKID GAS COOLER

DRAFT

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-107-7 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-89), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS, 1 OFF SKID GAS COOLER AND FACILITY INLET GAS/LIQUID SEPARATOR

DRAFT

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-104-6 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NE35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,445 BHP CATERPILLAR MODEL 3512 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING A 1000KW ELECTRICAL GENERATOR

DRAFT

## PERMIT UNIT REQUIREMENTS

1. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. Compliance with this requirement is assured by only using diesel fuel with sulfur content not exceeding 0.05% by weight. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
3. The diesel engine shall be operated with an initial injection timing setting of 16 degrees BTDC (Before Top Dead Center) or less. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Engine shall be equipped with a turbocharger. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Engine shall be equipped with an aftercooler or intercooler. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The engine shall not have a rain cap, that impedes vertical exhaust flow, installed on the exhaust pipe. [District Rule 4102]
8. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rule 2520, 9.3.2 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
10. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions shall not exceed any of the following at full rated load: NOx, 9.39 g/bhp-hr; CO, 0.93 g/bhp-hr; VOC, 0.28 g/bhp-hr; PM10, 0.142 g/bhp-hr; or SOx, 0.082 g/bhp-hr. [District Rule 2201 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201 and 4702, 4.2, 17 CCR 93115 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit

14. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit

15. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit

16. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit

17. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rules 2520, 9.4.2 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit

18. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

19. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

20. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

21. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

22. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

23. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

24. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-101-6 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
300 BHP SIEMENS ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-85) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE S-2234

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. Maximum VOC fugitive emissions shall not exceed 1.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The operator shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using API Publication 4322 Table E-3 and U.S. EPA publication 450/3-83-007, Table 4-1. [District NSR Rule] Federally Enforceable Through Title V Permit
7. VOC content of gas processed shall not exceed 28% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
8. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-100-6 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
300 BHP SIEMENS ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-84) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE S-2234

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. Maximum VOC fugitive emissions shall not exceed 1.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The operator shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using API Publication 4322 Table E-3 and U.S. EPA publication 450/3-83-007, Table 4-1. [District NSR Rule] Federally Enforceable Through Title V Permit
7. VOC content of gas processed shall not exceed 28% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
8. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-99-6 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
2,250 HP GENERAL ELECTRIC ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-83) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-98-6 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
2,250 HP GENERAL ELECTRIC ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-82) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-97-5 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,250 HP GENERAL ELECTRIC ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-81) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. Maximum VOC fugitive emissions shall not exceed 1.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The operator shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using API Publication 4322 Table E-3 and U.S. EPA publication 450/3-83-007, Table 4-1. [District NSR Rule] Federally Enforceable Through Title V Permit
7. VOC content of gas processed shall not exceed 28% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
8. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-86-14 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
490 BHP CATERPILLAR MODEL G398 RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-69 UNX# 54318)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
10. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; SOx (as SO2): 0.6 lb/day; PM10: 10.5 lb/day; CO: 11.6 g/hp-hr and 1,592 ppmv @ 15% O2; or VOC: 58 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
11. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
12. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
13. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

30. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

31. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

32. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

33. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

34. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

35. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-85-15 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
490 BHP CATERPILLAR MODEL G398 RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-66 UNX# 54299)

## PERMIT UNIT REQUIREMENTS

1. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; SOx (as SO2): 0.6 lb/day; PM10: 10.5 lb/day; CO: 11.6 g/hp-hr and 1,592 ppmv @ 15% O2; or VOC: 58 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
11. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
12. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
13. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

30. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

31. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

32. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

33. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

34. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

35. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-84-15 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
490 BHP CATERPILLAR MODEL G398 RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-67 UNX# 54302)

## PERMIT UNIT REQUIREMENTS

1. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
10. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; SOx (as SO2): 0.6 lb/day; PM10: 10.5 lb/day; CO: 11.6 g/hp-hr and 1,592 ppmv @ 15% O2; or VOC: 58 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
11. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
12. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
13. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District NSR Rule and District Rule 4702, 6.3.2] Federally Enforceable Through Title V Permit

17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

30. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

31. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

32. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

33. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

34. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

35. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-83-16 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
1,500 BHP WAUKESHA MODEL L7042 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-STRATIFIED COMBUSTION SYSTEM POWERING A GAS COMPRESSOR (K-71 UNX# 54497)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.26 gr/hp-hr, 4.17 lb/hr and 104 ppmv @ 15% O2 (equivalent to 93% NOx reduction), SOx (as SO2): 0.02 lb/hr, PM10: 0.05 lb/hr, CO: 8.00 lb/hr and 327 ppmv @ 15% O2, or VOC: 6.00 lb/hr and 429 ppmv @ 15% O2. [District Rules 2201, 4201, and 4702; Kern County Rule 407] Federally Enforceable Through Title V Permit
5. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
6. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702] Federally Enforceable Through Title V Permit
11. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

13. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
28. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-82-17 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,500 BHP WAUKESHA MODEL L7042 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-STRATIFIED COMBUSTION SYSTEM POWERING A GAS COMPRESSOR (K-70 UNX# 54508)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.26 gr/hp-hr, 4.17 lb/hr and 104 ppmv @ 15% O2 (equivalent to 93% NOx reduction), SOx (as SO2): 0.02 lb/hr, PM10: 0.05 lb/hr, CO: 8.00 lb/hr and 327 ppmv @ 15% O2, or VOC: 6.00 lb/hr and 429 ppmv @ 15% O2. [District Rules 2201, 4201, and 4702; Kern County Rule 407] Federally Enforceable Through Title V Permit
5. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
6. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702] Federally Enforceable Through Title V Permit
11. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

13. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
28. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-81-13 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042GL LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-STRATIFIED COMBUSTION SYSTEM POWERING A GAS COMPRESSOR (K-60)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.26 gr/hp-hr, 2.78 lb/hr and 104 ppmv @ 15% O2 (equivalent to 93% NOx reduction), SOx (as SO2): 0.01 lb/hr, PM10: 0.09 lb/hr, CO: 9.92 lb/hr and 608 ppmv @ 15% O2, or VOC: 7.00 lb/hr and 750 ppmv @ 15% O2. [District Rules 2201, 4201, and 4702; Kern County Rule 407] Federally Enforceable Through Title V Permit
5. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
6. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702] Federally Enforceable Through Title V Permit
11. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

13. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
28. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-80-13 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042GL LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-STRATIFIED COMBUSTION SYSTEM POWERING A GAS COMPRESSOR (K-59 UNX# 53881)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.26 gr/hp-hr, 2.78 lb/hr and 104 ppmv @ 15% O2 (equivalent to 93% NOx reduction); SOx (as SO2): 0.01 lb/hr; PM10: 0.09 lb/hr; CO: 9.92 lb/hr and 608 ppmv @ 15% O2; or VOC: 7.00 lb/hr and 750 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
5. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
6. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
11. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

13. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

20. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
24. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
25. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-79-19 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042 RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-57 UNX# 18017)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 240 ppmv @ 15% O2. [District Rules 2201, 4201, and 4702; Kern County Rule 407] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
37. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

43. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-78-19 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042 RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-58 UNX# 18033)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 240 ppmv @ 15% O2. [District Rules 2201, 4201, and 4702; Kern County Rule 407] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-77-15 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-47 UNX# 13716)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
12. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 5.42 lb/hr, 1.23 gr/hp-hr and 101 ppmv @ 15% O2 (equivalent to 93% NOx reduction); PM10: 0.49 lb/hr; CO: 22.05 lb/hr and 676 ppmv @ 15% O2; or VOC: 13.23 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

30. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

31. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

32. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

33. Source testing to measure the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

34. The permittee shall determine the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-76-14 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-46 UNX# 13715)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
6. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 5.42 lb/hr, 1.23 gr/hp-hr and 101 ppmv @ 15% O2 (equivalent to 93% NOx reduction); PM10: 0.49 lb/hr; CO: 22.05 lb/hr and 676 ppmv @ 15% O2; or VOC: 13.23 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
26. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
27. Source testing to measure the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
28. The permittee shall determine the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
29. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-75-16 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-45 UNX# 13706)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. {4562} Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. {4560} While dormant, normal source testing shall not be required. [District Rule 2080]
4. {4563} Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. {4564} Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. {4565} Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
12. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 5.42 lb/hr, 1.23 gr/hp-hr and 101 ppmv @ 15% O2 (equivalent to 93% NOx reduction); PM10: 0.49 lb/hr; CO: 22.05 lb/hr and 676 ppmv @ 15% O2; or VOC: 13.23 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

32. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

33. Source testing to measure the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

34. The permittee shall determine the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-74-20 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-50 UNX# 13401)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-73-20 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-51 UNX# 13793)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-72-20 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-35 UNX# 54626)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-71-23 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-34 UNX# 13417)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
13. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

30. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

32. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

33. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

34. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

35. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

36. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

37. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

47. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

48. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

49. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

50. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-70-23 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-33 UNX# 16453)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

24. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

25. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

26. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

27. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

28. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

29. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

30. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

31. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

32. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

34. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

35. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

36. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

37. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

38. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

39. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

40. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

41. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

42. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

43. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-69-20 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-32 UNX# 18028)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-68-20 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-31 UNX# 11553)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-67-20 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-30 UNX# 13426)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2 (equivalent to 96% NOx reduction); PM10: 0.24 lb/hr; CO: 8.82 lb/hr and 541 ppmv @ 15% O2; or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District NSR Rule and District Rule 4702, 5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
26. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
27. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
30. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
31. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. NOx emissions rate shall not exceed 8.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
33. Source testing to measure the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GSI) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
34. The permittee shall determine the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GSI) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-66-18 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
650 BHP WAUKESHA MODEL L7042-GU RICH-BURN NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-28 UNX# 12850)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; PM10: 13.9 lb/day; CO: 2.1 g/hp-hr and 289 ppmv; or VOC: 67 ppmv. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
26. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
27. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
30. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
31. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. NOx emissions rate shall not exceed 8.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
33. Source testing to measure the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GU) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
34. The permittee shall determine the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GU) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-65-18 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
650 BHP WAUKESHA MODEL L7042-GU RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-27 UNX #12705)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; PM10: 13.9 lb/day; CO: 2.1 g/hp-hr and 289 ppmv; or VOC: 67 ppmv. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

20. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
24. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
25. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
26. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
29. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
31. NOx emissions rate shall not exceed 8.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
32. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit
33. Source testing to measure the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GU) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
34. The permittee shall determine the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GU) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-64-18 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
650 BHP WAUKESHA MODEL L7042-GU RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-26 UNX# 11554)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; PM10: 13.9 lb/day; CO: 2.1 g/hp-hr and 289 ppmv; or VOC: 67 ppmv. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
26. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
27. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
30. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
31. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. NOx emissions rate shall not exceed 8.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
33. Source testing to measure the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GU) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
34. The permittee shall determine the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GU) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-63-20 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-48 UNX# 13435)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-62-14 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-44 UNX# 13701)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
6. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 5.42 lb/hr, 1.23 gr/hp-hr and 101 ppmv @ 15% O2 (equivalent to 90% NOx reduction); PM10: 0.49 lb/hr; CO: 22.05 lb/hr and 676 ppmv @ 15% O2; or VOC: 13.23 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
26. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
27. Source testing to measure the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
28. The permittee shall determine the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
29. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-61-20 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042GSI RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-52 UNX# 15676)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2 (equivalent to 96% NOx reduction); PM10: 0.24 lb/hr; CO: 8.82 lb/hr and 541 ppmv @ 15% O2; or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
26. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
27. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
30. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
31. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. NOx emissions rate shall not exceed 8.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
33. Source testing to measure the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GSI) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
34. The permittee shall determine the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GSI) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-60-16 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
650 BHP WAUKESHA MODEL L7042-GU RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-54 UNX# 12877)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. {4562} Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. {4560} While dormant, normal source testing shall not be required. [District Rule 2080]
4. {4563} Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. {4564} Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. {4565} Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; PM10: 13.9 lb/day; CO: 2.1 g/hp-hr and 289 ppmv @ 15% O2; or VOC: 67 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
13. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
30. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
31. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
32. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
33. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
34. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
35. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
36. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
38. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
39. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

40. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

47. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

48. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-59-21 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSI RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-29 UNX# 13207)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11ppmv @ 15% O2, SOx (as SO2): 0.34 lb/hr, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-58-22 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-49 UNX# 51286)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-57-20 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP NATURAL GAS FIRED WAUKESHA MODEL L7042 RICH BURN I.C. ENGINE WITH TURBOCHARGER, ENLARGED NOZZLE RING, AIR/FUEL RATIO CONTROL UNIT, AND A NONSELECTIVE THREE WAY CATALYTIC REDUCTION (NSCR) SYSTEM (K-53 UNX #13444)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; PM10: 0.24 lb/hr; CO: 8.82 lb/hr and 541 ppmv @ 15% O2; or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

13. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

14. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

16. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
26. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
27. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
30. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
31. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. NOx emissions rate shall not exceed 8.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
33. Source testing to measure the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GSI) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
34. The permittee shall determine the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GSI) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-53-11 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NE35 **TOWNSHIP:** 30S **RANGE:** 23E

DRAFT

**EQUIPMENT DESCRIPTION:**
ONE 24.5 MW NATURAL GAS-FIRED GAS TURBINE COGENERATION SYSTEM, INCLUDING 250 MMBTU/HR GENERAL ELECTRIC MODEL LM-2500 GAS TURBINE, 103 MMBTU/HR DUCT BURNER ASSEMBLY, AND 150,000 LB/HR HEAT RECOVERY STEAM GENERATOR

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. All equipment shall be maintained and operated according to manufacturers' recommendations. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Circular cross section exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and equipped with flow straighteners, if necessary, to minimize turbulence. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Gas turbine engine and duct burner assembly shall be equipped with continuously recording fuel gas flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Gas turbine engine shall be equipped with continuously recording NOx and O2 monitors for engine exhaust gas stream after duct burners and catalyst beds. [District Rules 2201 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
11. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of one hour and one hour, respectively, per occurrence. [District Rules 2201 and 4703, 5.3.1] Federally Enforceable Through Title V Permit
12. Gas turbine engine combustor steam injection system shall be equipped with continuously recording steam-to-fuel injection rate monitoring system accurate to within +/- 5%. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Except during periods of gas turbine engine startup/shutdown, gas turbine engine steam injection rate shall be maintained at steam-to-fuel ratio range documented to result in compliance with emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

14. All exhaust from gas turbine engine and duct burners shall flow through both SCR and oxidation catalyst beds. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Gas temperatures at SCR and oxidation catalyst inlets shall be monitored by operational temperature indicators. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Except during periods of gas turbine engine startup/shutdown, inlet gas temperatures of SCR and oxidation catalyst beds shall be maintained within ranges recommended by the catalyst manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Installed SCR and oxidation catalyst beds shall provide space for additional catalyst if source operation cannot achieve emission sampling limits of NOx, VOC, and CO. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Except during periods of gas turbine engine startup/shutdown, gas turbine engine shall be shut down if steam injection or SCR system is inoperative. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Ammonia injection rate shall be controlled to maintain ammonia "breakthrough" to less than 20 ppmv (3-hr rolling average) from gas turbine exhaust. [District Rule 4102]

21. Excess emissions shall be defined as any operating hour in which 4-hour rolling average NOx concentration exceeds applicable emissions limit and a period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx or O2 (or both). [40 CFR 60.334(J)(1)(iii)] Federally Enforceable Through Title V Permit

22. Transitional Operation Period shall be defined as any of following periods: bypass transition period, primary re-ignition period, reduced load period, start-up or shutdown. [District Rule 4703, 3.33] Federally Enforceable Through Title V Permit

23. Bypass Transition Period shall be defined as the duration of time that a gas turbine's operation transitions between the heat recovery steam generator and bypass exhaust stacks, provided all of the following conditions are met: a) The selective catalytic reduction catalyst is not within the required temperature range or the required ammonia saturation level has not yet been achieved; b) The duration of a bypass transition period shall not exceed two hours; c) NOx emissions shall not exceed 15 ppmvd, corrected to 15% O2, averaged over two (2) hours; and d) The applicable CO compliance limit shall not be exceeded. [District Rule 4703, 3.2] Federally Enforceable Through Title V Permit

24. Primary Re-ignition Period shall be defined as the duration of time during which a gas turbine is operated at less than rated capacity in order to reset the DLN combustion system following a primary re-ignition, provided all of the following conditions are met: a) The duration of a primary re-ignition period shall not exceed one hour; b) NOx emissions shall not exceed 15 ppmvd, corrected at 15% O2, averaged over one (1) hour; and c) CO emissions shall not exceed 25 ppmvd, corrected at 15% O2. [District Rule 4703, 3.20] Federally Enforceable Through Title V Permit

25. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate, not to exceed one hour. [District Rule 4703, 3.23] Federally Enforceable Through Title V Permit

26. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during each transitional operation period. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit

27. No more than 6.00 MMscf/day of natural gas shall be consumed by gas turbine and no more than 2.47 MMscf/day of natural gas shall be consumed by duct burners. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Maximum emissions from turbines S-2234-52 & -53 and standby boilers/heaters S-2234-1 & -3 shall not exceed the following daily emission limitations (DEL): PM10: 50.6 lb/day, NOx (as NO2): 245.7 lb/day, VOC: 51.4 lb/day, and CO: 544.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. During days of gas turbine startup/shutdown, daily NO2 and CO emissions shall be calculated by natural gas consumption rates, CEM results, and emission factors for standby boilers/heaters. [District Rule 2201] Federally Enforceable Through Title V Permit

30. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbines for normal operation and startup/shutdown periods, and in LTS-1 & LTS-2 gas plant standby boilers/heaters. [District Rule 2201] Federally Enforceable Through Title V Permit

31. Permittee shall maintain daily records of NO2 and CO emission calculations during days of gas turbine startup/shutdown, and such records shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

32. Permittee shall maintain accurate records of CEM printouts, and daily natural gas consumption in gas turbine & duct burners, and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Permittee shall report the following emission exceedances to the District: emission rates of NOx and CO on a 3-hr rolling average, NSPS NOx emission rate on one hour average, and DEL of NOx & CO during days of gas turbine engine startup/shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Gas turbine lube oil system atmospheric vent shall be equipped with aerosol/smoke control provisions. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Emission rates from gas turbine lube oil vent shall not exceed the following: PM10: 0.02 lb/hr and VOC: 0.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

36. PM10 and VOC emissions from lube oil vent shall be measured by source testing within 60 days upon detection of visible emissions in excess of 5% opacity or Ringelmann 1/4 from gas turbine lube oil vent. [District Rule 2201] Federally Enforceable Through Title V Permit

37. Except during periods of startup/shutdown, emission rates (3-hr rolling average) from gas turbine combustion shall not exceed: PM10: 0.004 lb/MMBtu, NOx as NO2: 0.013 lb/MMBtu & 3.75 ppmvd @ 15% O2, VOC: 0.004 lb/MMBtu, and CO: 0.043 lb/MMBtu. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. Except during periods of startup/shutdown, emission rates (3-hr rolling average) from duct burner combustion shall not exceed: PM10: 0.001 lb/MMBtu, NOx as NO2: 0.008 lb/MMBtu, VOC: 0.001 lb/MMBtu, and CO: 0.007 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

39. If NOx CEM data & source testing results show compliance at lower NOx emission than 3.75 ppmvd @ 15% O2, District may adjust permitted NOx emission rate 12 months after complete implementation of this approval according to CEM data & testing results. [District Rule 2201] Federally Enforceable Through Title V Permit

40. NOx, VOC, CO, and ammonia emissions shall be measured by source testing annually 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

41. Permittee shall maintain steam to fuel ratio during annual compliance testing to within +/- 5% of the average daily values recorded during the 60 day period prior to annual testing. [District Rule 2201] Federally Enforceable Through Title V Permit

42. Permittee shall maintain exhaust gas temperatures at SCR and oxidation catalyst inlets to within +/- 5% of the average daily values recorded during the 60 day period prior to annual testing. [District Rule 2201] Federally Enforceable Through Title V Permit

43. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

44. The results of each source test shall be submitted to the District within 60 days of field testing. [District Rule 1081] Federally Enforceable Through Title V Permit

45. LTS-1 and LTS-2 gas plants (S-2234-3 & '1) standby boilers/heaters shall only be used when one or both gas turbines (S-2234-52 & '53) are inoperative. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

46. Gas turbine engine shall be equipped with G.E. Steward Stevenson turbine combustor steam injection system, Mitsubishi/Applied Thermal Systems selective catalytic reduction (SCR) with ammonia injection, and Grace oxidation catalyst system. [District Rule 2201] Federally Enforceable Through Title V Permit

47. Unit shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.0026% by weight. [40 CFR 60.333(a) & (b); 60.332(a)] Federally Enforceable Through Title V Permit

48. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201] Federally Enforceable Through Title V Permit

49. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit

50. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit

51. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the turbine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2, 40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

52. If the turbine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

53. The HHV and LHV of the fuel shall be determined using ASTM D3588-91, ASTM 1826-88, OR ASTM 1945-81. [40 CFR 60.332(a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

54. Performance testing shall be conducted annually to measure NOx and CO emission concentrations using the following test methods: EPA Methods 7E or 20 for NOx emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. The 9-run tests shall be performed at highest physically achievable load of the gas turbine. [40 CFR 60.335(a), (b)(7) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Federally Enforceable Through Title V Permit

55. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and date recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)(2) and District Rule 1081, 6.4] Federally Enforceable Through Title V Permit

56. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit

57. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [40 CFR 60.335(b) and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit

58. The NOx and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2 and 3, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)(1) and, District Rule 1080, 6.3, 6.5, 6.6, & 7.2] Federally Enforceable Through Title V Permit

59. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

60. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEMS that have been installed pursuant to District Rule 1080, and emission measurements. [District Rules 1080, 7.3, and 4703, 6.2.8, and 40 CFR 60.7 (b)] Federally Enforceable Through Title V Permit

61. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

62. The operator of a stationary gas turbine system shall maintain records of the date, time and duration of each bypass transition period and each primary re-ignition period. [District Rule 4703, 6.2.11] Federally Enforceable Through Title V Permit

63. The operator of a stationary gas turbine system shall provide source test information annually regarding the exhaust gas NOx and CO concentrations and the control efficiency of the emission control device. [District Rule 4703, 6.3.1] Federally Enforceable Through Title V Permit

64. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(a),(b),(c) and District Rule 4703, 5.0] Federally Enforceable Through Title V Permit

65. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

66. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: 40 CFR 60.333 (a) and (b); 60.334(a),(b), and (c)(1); SJVUAPCD Rule 4703, Section 6.2.2 and 1080, 7.3. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

67. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4201, 1081 and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332(c) and (d); 60.334(b) and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

68. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

69. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: 40 CFR 60.332(a), (b); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

70. Operator shall install, operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation, the exhaust gas NOx and O2 concentrations. [40 CFR 60.334(a),(b)] Federally Enforceable Through Title V Permit

71. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit

72. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit

73. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. Operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

74. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; C. applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; D. a negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit

75. NOx and carbon monoxide daily emissions shall be measured by use of CEM data, fuel rate data, and daily hours of operation data. A written record of the required compliance demonstrations shall be maintained and made available for District inspection for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-52-14 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NE35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ONE 24.5 MW NATURAL GAS-FIRED GAS TURBINE COGENERATION SYSTEM, INCLUDING 250 MMBTU/HR GENERAL ELECTRIC MODEL LM-2500 GAS TURBINE, 103 MMBTU/HR DUCT BURNER ASSEMBLY, 150,000 LB/HR HEAT RECOVERY STEAM GENERATOR, AND 6 MW STEAM TURBINE SERVING S-2234-52 AND S-2234-53

## PERMIT UNIT REQUIREMENTS

1. This unit may be designated as a dormant emissions unit or an active emissions unit. The permittee shall notify the District's Compliance Division by US mail, email or Fax upon redesignating the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. While dormant, normal monitoring and recordkeeping shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
8. All equipment shall be maintained and operated according to manufacturers' recommendations. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Circular cross section exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and equipped with flow straighteners, if necessary, to minimize turbulence. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Gas turbine engine and duct burner assembly shall be equipped with continuously recording fuel gas flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Gas turbine engine shall be equipped with continuously recording NOx and O2 monitors for engine exhaust gas stream after duct burners and catalyst beds. [District Rules 2201 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
12. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of one hour and one hour, respectively, per occurrence. [District Rules 2201 and 4703, 5.3.1] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Gas turbine engine combustor steam injection system shall be equipped with continuously recording steam-to-fuel injection rate monitoring system accurate to within +/- 5%. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Except during periods of gas turbine engine startup/shutdown, gas turbine engine steam injection rate shall be maintained at steam-to-fuel ratio range documented to result in compliance with emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

15. All exhaust from gas turbine engine and duct burners shall flow through both SCR and oxidation catalyst beds. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Gas temperatures at SCR and oxidation catalyst inlets shall be monitored by operational temperature indicators. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Except during periods of gas turbine engine startup/shutdown, inlet gas temperatures of SCR and oxidation catalyst beds shall be maintained within ranges recommended by the catalyst manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Installed SCR and oxidation catalyst beds shall provide space for additional catalyst if source operation cannot achieve emission sampling limits of NOx, VOC, and CO. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Except during periods of gas turbine engine startup/shutdown, gas turbine engine shall be shut down if steam injection or SCR system is inoperative. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Ammonia injection rate shall be controlled to maintain ammonia "breakthrough" to less than 20 ppmv (3-hr rolling average) from gas turbine exhaust. [District Rule 4102]

22. Excess emissions shall be defined as any operating hour in which 4-hour rolling average NOx concentration exceeds applicable emissions limit and a period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx or O2 (or both). [40 CFR 60.334(J)(1)(iii)] Federally Enforceable Through Title V Permit

23. Transitional Operation Period shall be defined as any of following periods: bypass transition period, primary re-ignition period, reduced load period, start-up or shutdown. [District Rule 4703, 3.33] Federally Enforceable Through Title V Permit

24. Bypass Transition Period shall be defined as the duration of time that a gas turbine's operation transitions between the heat recovery steam generator and bypass exhaust stacks, provided all of the following conditions are met: a) The selective catalytic reduction catalyst is not within the required temperature range or the required ammonia saturation level has not yet been achieved; b) The duration of a bypass transition period shall not exceed two hours; c) NOx emissions shall not exceed 15 ppmvd, corrected to 15% O2, averaged over two (2) hours; and d) The applicable CO compliance limit shall not be exceeded. [District Rule 4703, 3.2] Federally Enforceable Through Title V Permit

25. Primary Re-ignition Period shall be defined as the duration of time during which a gas turbine is operated at less than rated capacity in order to reset the DLN combustion system following a primary re-ignition, provided all of the following conditions are met: a) The duration of a primary re-ignition period shall not exceed one hour; b) NOx emissions shall not exceed 15 ppmvd, corrected at 15% O2, averaged over one (1) hour; and c) CO emissions shall not exceed 25 ppmvd, corrected at 15% O2. [District Rule 4703, 3.20] Federally Enforceable Through Title V Permit

26. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate, not to exceed one hour. [District Rule 4703, 3.23] Federally Enforceable Through Title V Permit

27. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during each transitional operation period. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit

28. No more than 6.00 MMscf/day of natural gas shall be consumed by gas turbine and no more than 2.47 MMscf/day of natural gas shall be consumed by duct burners. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. Maximum emissions from turbines S-2234-52 & -53 and standby boilers/heaters S-2234-1 & -3 shall not exceed the following daily emission limitations (DEL): PM10: 50.6 lb/day, NOx (as NO2): 245.7 lb/day, VOC: 51.4 lb/day, and CO: 544.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

30. During days of gas turbine startup/shutdown, daily NO2 and CO emissions shall be calculated by natural gas consumption rates, CEM results, and emission factors for standby boilers/heaters. [District Rule 2201] Federally Enforceable Through Title V Permit

31. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbines for normal operation and startup/shutdown periods, and in LTS-1 & LTS-2 gas plant standby boilers/heaters. [District Rule 2201] Federally Enforceable Through Title V Permit

32. Permittee shall maintain daily records of NO2 and CO emission calculations during days of gas turbine startup/shutdown, and such records shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Permittee shall maintain accurate records of CEM printouts, and daily natural gas consumption in gas turbine & duct burners, and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Permittee shall report the following emission exceedances to the District: emission rates of NOx and CO on a 3-hr rolling average, NSPS NOx emission rate on one hour average, and DEL of NOx & CO during days of gas turbine engine startup/shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Gas turbine lube oil system atmospheric vent shall be equipped with aerosol/smoke control provisions. [District Rule 2201] Federally Enforceable Through Title V Permit

36. Emission rates from gas turbine lube oil vent shall not exceed the following: PM10: 0.02 lb/hr and VOC: 0.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

37. PM10 and VOC emissions from lube oil vent shall be measured by source testing within 60 days upon detection of visible emissions in excess of 5% opacity or Ringelmann 1/4 from gas turbine lube oil vent. [District Rule 2201] Federally Enforceable Through Title V Permit

38. Except during periods of startup/shutdown, emission rates (3-hr rolling average) from gas turbine combustion shall not exceed: PM10: 0.004 lb/MMBtu, NOx as NO2: 0.013 lb/MMBtu & 3.75 ppmvd @ 15% O2, VOC: 0.004 lb/MMBtu, and CO: 0.043 lb/MMBtu. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

39. Except during periods of startup/shutdown, emission rates (3-hr rolling average) from duct burner combustion shall not exceed: PM10: 0.001 lb/MMBtu, NOx as NO2: 0.008 lb/MMBtu, VOC: 0.001 lb/MMBtu, and CO: 0.007 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

40. If NOx CEM data & source testing results show compliance at lower NOx emission than 3.75 ppmvd @ 15% O2, District may adjust permitted NOx emission rate 12 months after complete implementation of this approval according to CEM data & testing results. [District Rule 2201] Federally Enforceable Through Title V Permit

41. NOx, VOC, CO, and ammonia emissions shall be measured by source testing annually 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

42. Permittee shall maintain steam to fuel ratio during annual compliance testing to within +/- 5% of the average daily values recorded during the 60 day period prior to annual testing. [District Rule 2201] Federally Enforceable Through Title V Permit

43. Permittee shall maintain exhaust gas temperatures at SCR and oxidation catalyst inlets to within +/- 5% of the average daily values recorded during the 60 day period prior to annual testing. [District Rule 2201] Federally Enforceable Through Title V Permit

44. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

45. The results of each source test shall be submitted to the District within 60 days of field testing. [District Rule 1081] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

46. LTS-1 and LTS-2 gas plants (S-2234-3 & '1) standby boilers/heaters shall only be used when one or both gas turbines (S-2234-52 & '53) are inoperative. [District Rule 2201] Federally Enforceable Through Title V Permit

47. Gas turbine engine shall be equipped with G.E. Steward Stevenson turbine combustor steam injection system, Mitsubishi/Applied Thermal Systems selective catalytic reduction (SCR) with ammonia injection, and Grace oxidation catalyst system. [District Rule 2201] Federally Enforceable Through Title V Permit

48. Unit shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.0026% by weight. [40 CFR 60.333(a) & (b); 60.332(a)] Federally Enforceable Through Title V Permit

49. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201] Federally Enforceable Through Title V Permit

50. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit

51. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit

52. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the turbine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2, 40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

53. If the turbine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

54. The HHV and LHV of the fuel shall be determined using ASTM D3588-91, ASTM 1826-88, OR ASTM 1945-81. [40 CFR 60.332(a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

55. Performance testing shall be conducted annually to measure NOx and CO emission concentrations using the following test methods: EPA Methods 7E or 20 for NOx emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. The 9-run tests shall be performed at highest physically achievable load of the gas turbine. [40 CFR 60.335(a), (b)(7) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Federally Enforceable Through Title V Permit

56. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and date recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)FSand District Rule 1081, 6.4] Federally Enforceable Through Title V Permit

57. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit

58. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [40 CFR 60.335(b) and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit

59. The NOx and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2 and 3, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)(1) and, District Rule 1080, 6.3, 6.5, 6.6, & 7.2] Federally Enforceable Through Title V Permit

60. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

61. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEMS that have been installed pursuant to District Rule 1080, and emission measurements. [District Rules 1080, 7.3, and 4703, 6.2.8, and 40 CFR 60.7 (b)] Federally Enforceable Through Title V Permit

62. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

63. The operator of a stationary gas turbine system shall maintain records of the date, time and duration of each bypass transition period and each primary re-ignition period. [District Rule 4703, 6.2.11] Federally Enforceable Through Title V Permit

64. The operator of a stationary gas turbine system shall provide source test information annually regarding the exhaust gas NOx and CO concentrations and the control efficiency of the emission control device. [District Rule 4703, 6.3.1] Federally Enforceable Through Title V Permit

65. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(a),(b),(c) and District Rule 4703, 5.0] Federally Enforceable Through Title V Permit

66. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

67. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: 40 CFR 60.333 (a) and (b); 60.334(a),(b), and (c)(1); SJVUAPCD Rule 4703, Section 6.2.2 and 1080, 7.3. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

68. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4201, 1081 and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332(c) and (d); 60.334(b) and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

69. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

70. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: 40 CFR 60.332(a), (b); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

71. Operator shall install, operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation, the exhaust gas NOx and O2 concentrations. [40 CFR 60.334(a),(b)] Federally Enforceable Through Title V Permit

72. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit

73. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit

74. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. Operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

75. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; C. applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; D. a negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit

76. NOx and carbon monoxide daily emissions shall be measured by use of CEM data, fuel rate data, and daily hours of operation data. A written record of the required compliance demonstrations shall be maintained and made available for District inspection for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-48-13 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
490 BHP CATERPILLAR MODEL G398 RICH-BURN NATURAL GAS-FIRED IC ENGINE POWERING A GAS COMPRESSOR (K-68 UNX #54313)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2 NOx; SOx (as SO2): 0.6 lb/day; PM10: 10.5 lb/day; CO: 11.6 g/hp-hr and 1,592 ppmv @ 15% O2; or VOC: 58 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
11. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE



DRAFT

13. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

20. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
23. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
24. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
25. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
26. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
29. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
31. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
37. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-47-12 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35NE **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
793 BHP WAUKESHA NATURAL GAS-FIRED STANDBY IC ENGINE (UNX #14772)

DRAFT

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, the operator shall not be required to perform normal maintenance and inspections. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal maintenance and inspections shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any maintenance and inspections required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
11. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
12. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
13. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
14. {842} If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 2201 and 4702, 3.15 and 4.2, 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

18. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit

19. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit

20. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit

21. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 1070 and 4702, 6.2.3] Federally Enforceable Through Title V Permit

22. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

23. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

24. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

25. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

26. The engine's spark plugs shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

27. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

28. The permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-46-12 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35NE **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
793 BHP WAUKESHA NATURAL GAS-FIRED STANDBY IC ENGINE (UNX #13397)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, the operator shall not be required to perform normal maintenance and inspections. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal maintenance and inspections shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any maintenance and inspections required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
11. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
12. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
13. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
14. {842} If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 2201 and 4702, 3.15 and 4.2, 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

18. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit

19. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit

20. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit

21. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 1070 and 4702, 6.2.3] Federally Enforceable Through Title V Permit

22. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

23. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

24. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

25. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

26. The engine's spark plugs shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

27. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

28. The permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-43-9 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
227 BHP CATERPILLAR DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (P4)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, the operator shall not be required to perform normal maintenance and inspections. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal maintenance and inspections shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any maintenance and inspections required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
10. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
11. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
12. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
13. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2520, 9.3.2 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
15. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
16. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
17. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
18. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
19. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rules 2520, 9.4.2 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
20. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rule 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
21. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
22. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

27. The permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

28. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

DRAFT

**PERMIT UNIT:** S-2234-38-7 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
310 BHP CUMMINS DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP (UNX #51392)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
4. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
5. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 4.3.1, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2520, 9.3.2 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 4.3.1, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. An emergency situation is when the engine is operated exclusively to preserve or protect property, human life, or public health during a disaster or state of emergency, such as a fire or flood. [District Rule 4702, 4.3.1] Federally Enforceable Through Title V Permit
9. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the initial start-up hours, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rules 2520, 9.4.2 and 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rule 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
14. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
15. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
16. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-31-22 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042GSI RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER, ENLARGED TURBOCHARGER NOZZLE RING, AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-13 UNX #13409)

## PERMIT UNIT REQUIREMENTS

1. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2 (equivalent to 96% NOx reduction), PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
13. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

30. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

32. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

33. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

34. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

35. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

36. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

37. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

47. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

48. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

49. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

50. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-30-20 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER, ENLARGED TURBOCHARGER NOZZLE RING, AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-12 UNX #12493)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2 (equivalent to 96% NOx reduction), PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-29-22 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042GSI RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER, ENLARGED TURBOCHARGER NOZZLE RING, AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-11 UNX #13198)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
13. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

30. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

32. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

33. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

34. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

35. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

36. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

37. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

47. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

48. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

49. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

50. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-18-14 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-39 UNX #13672)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
6. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 7.72 lb/hr, 1.23 gr/hp-hr and 101 ppmv @ 15% O2 (equivalent to 93% NOx reduction); PM10: 0.49 lb/hr; CO: 22.05 lb/hr and 676 ppmv @ 15% O2; or VOC: 13.23 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
26. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
27. Source testing to measure the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
28. The permittee shall determine the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
29. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-17-15 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-38 UNX #13673)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.16 gr/hp-hr and 95 ppm @ 15% O2 (equivalent to 90% NOx reduction), PM10: 1.33 lb/hr, CO: 60.63 lb/hr and 676 ppmv @ 15% O2, or VOC: 36.38 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

26. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrate compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2; and PSD SJ 77-42] Federally Enforceable Through Title V Permit

27. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE



DRAFT

39. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-16-15 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-37 UNX #13674)

DRAFT

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.16 gr/hp-hr and 95 ppmv @ 15% O2, PM10: 1.33 lb/hr, CO: 60.63 lb/hr and 676 ppmv @ 15% O2, or VOC: 36.38 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

26. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrate compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2; and PSD SJ 77-42] Federally Enforceable Through Title V Permit

27. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE



DRAFT

39. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-15-15 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-36 UNX #13675)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.16 gr/hp-hr and 95 ppmv @ 15% O2, PM10: 1.33 lb/hr, CO: 60.63 lb/hr and 676 ppmv @ 15% O2, or VOC: 36.38 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

26. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrate compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2; and PSD SJ 77-42] Federally Enforceable Through Title V Permit

27. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE



DRAFT

39. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-14-7 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
105.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #1

## PERMIT UNIT REQUIREMENTS

1. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of vent gas combusted in the flare shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
2. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of pilot gas combusted shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
3. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
6. The flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
7. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present, shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
8. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
9. Vent gas emission rates from this unit shall not exceed any of the following limits: NOx - 0.068 lb/MMBtu; VOC - 0.063 lb/MMBtu; CO - 0.37 lb/MMBtu; PM10 - 0.008 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Pilot emission rates from this unit shall not exceed any of the following limits: NOx - 0.0094 lb/MMBtu; VOC - 0.0055 lb/MMBtu; CO - 0.04 lb/MMBtu; PM10 - 0.076 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 30,938 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 185,625 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 2,103.8 lb-NOx; 88.2 lb-SOx; 247.5 lb-PM10; 11,447.1 lb-CO; 1,949.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 12,623 lb-NOx; 529 lb-SOx; 1,485 lb-PM10; 68,681 lb-CO; 11,694 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 110 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 40,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 10.3 lb-NOx; 0.3 lb-SOx; 0.8 lb-PM10; 4.4 lb- CO; 0.6 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 3,760 lb-NOx; 114 lb-SOx; 304 lb-PM10; 1,600 lb-CO; 220 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

20. Operators subject to vent gas composition monitoring requirements shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA: Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

21. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

22. Vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311, 6.3.5] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The operator shall monitor vent gas composition using one of the following five methods as appropriate. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis. 1) Sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours. (b) Samples shall be analyzed using approved test methods; or 2) Integrated sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less. (b) Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample container is full. If sampling is still required pursuant to part (a), a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours. (c) Samples shall be analyzed using approved test methods; or 3) Continuous analyzers that meet the following requirements: (a) The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur. (b) The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon. (c) Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale; or 4). Continuous analyzers employing gas chromatography that meet the following requirements: (a) The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide. (b) The gas chromatography system shall be maintained to be accurate within 5% of full scale; or 5) Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested using approved test methods. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

24. Permittee shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit

25. The operator of a flare with a water seal shall monitor and record the water level and pressure of the water seal daily or as specified on the Permit to Operate. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit

26. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

27. During periods of inoperation of continuous analyzers or auto-samplers, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

28. Permittee shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

29. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

30. Permittee shall keep accurate daily records of flare vent gas and pilot gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201]

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. Permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit
32. Records of flare maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
33. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit
34. Compliance with the requirements for this permit unit shall be deemed compliance with District Rules 4201. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-12-14 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-43 UNX #13694)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
6. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 5.42 lb/hr, 1.23 gr/hp-hr and 101 ppmv @ 15% O2 (equivalent to 93% NOx reduction); PM10: 0.49 lb/hr; CO: 22.05 lb/hr and 676 ppmv @ 15% O2; or VOC: 13.23 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
26. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
27. Source testing to measure the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
28. The permittee shall determine the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
29. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

DRAFT

**PERMIT UNIT:** S-2234-11-17 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-42 UNX #16650)

# PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. {4562} Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. {4560} While dormant, normal source testing shall not be required. [District Rule 2080]
4. {4563} Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. {4564} Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. {4565} Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.16 gr/hp-hr and 95 ppmv @ 15% O2, PM10: 1.33 lb/hr, CO: 60.63 lb/hr and 676 ppmv @ 15% O2, or VOC: 36.38 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
15. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

16. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

26. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrate compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2; and PSD SJ 77-42] Federally Enforceable Through Title V Permit

27. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

DRAFT

39. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-10-17 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-41 UNX #16651)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. {4562} Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. {4560} While dormant, normal source testing shall not be required. [District Rule 2080]
4. {4563} Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. {4564} Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. {4565} Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.16 gr/hp-hr and 95 ppmv @ 15% O2, PM10: 1.33 lb/hr, CO: 60.63 lb/hr and 676 ppmv @ 15% O2, or VOC: 36.38 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
15. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

16. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

26. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrate compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2; and PSD SJ 77-42] Federally Enforceable Through Title V Permit

27. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



DRAFT

39. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-9-17 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-40 UNX #16652)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. {4562} Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. {4560} While dormant, normal source testing shall not be required. [District Rule 2080]
4. {4563} Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. {4564} Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. {4565} Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.16 gr/hp-hr and 95 ppmv @ 15% O2, PM10: 1.33 lb/hr, CO: 60.63 lb/hr and 676 ppmv @ 15% O2, or VOC: 36.38 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
15. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

16. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

26. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrate compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.3.2, and 4702, 6.3.2; and PSD SJ 77-42] Federally Enforceable Through Title V Permit

27. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



DRAFT

39. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-8-7 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
104.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #2 PLANT

DRAFT

## PERMIT UNIT REQUIREMENTS

1. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of vent gas combusted in the flare shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
2. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of pilot gas combusted shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
3. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
6. The flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
7. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present, shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
8. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
9. Vent gas emission rates from this unit shall not exceed any of the following limits: NOx - 0.068 lb/MMBtu; VOC - 0.063 lb/MMBtu; CO - 0.37 lb/MMBtu; PM10 - 0.008 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Pilot emission rates from this unit shall not exceed any of the following limits: NOx - 0.0094 lb/MMBtu; VOC - 0.0055 lb/MMBtu; CO - 0.04 lb/MMBtu; PM10 - 0.076 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 30,938 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 185,625 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 2,103.8 lb-NOx; 88.2 lb-SOx; 247.5 lb-PM10; 11,447.1 lb-CO; 1,949.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 12,623 lb-NOx; 529 lb-SOx; 1,485 lb-PM10; 68,681 lb-CO; 11,694 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 110 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 40,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 10.3 lb-NOx; 0.3 lb-SOx; 0.8 lb-PM10; 4.4 lb- CO; 0.6 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 3,760 lb-NOx; 114 lb-SOx; 304 lb-PM10; 1,600 lb-CO; 220 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

20. Operators subject to vent gas composition monitoring requirements shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA: Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

21. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

22. Vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311, 6.3.5] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The operator shall monitor vent gas composition using one of the following five methods as appropriate. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis. 1) Sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours. (b) Samples shall be analyzed using approved test methods; or 2) Integrated sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less. (b) Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample container is full. If sampling is still required pursuant to part (a), a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours. (c) Samples shall be analyzed using approved test methods; or 3) Continuous analyzers that meet the following requirements: (a) The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur. (b) The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon. (c) Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale; or 4). Continuous analyzers employing gas chromatography that meet the following requirements: (a) The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide. (b) The gas chromatography system shall be maintained to be accurate within 5% of full scale; or 5) Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested using approved test methods. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

24. Permittee shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit

25. The operator of a flare with a water seal shall monitor and record the water level and pressure of the water seal daily or as specified on the Permit to Operate. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit

26. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

27. During periods of inoperation of continuous analyzers or auto-samplers, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

28. Permittee shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

29. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

30. Permittee shall keep accurate daily records of flare vent gas and pilot gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201]

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. Permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit
32. Records of flare maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
33. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit
34. Compliance with the requirements for this permit unit shall be deemed compliance with District Rules 4201. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-4-11 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NE35 **TOWNSHIP:** 30S **RANGE:** 23E

DRAFT

**EQUIPMENT DESCRIPTION:**
NATURAL GASOLINE, BUTANE, AND PROPANE LOADING RACK CONSISTING OF 7 LOADING ISLANDS, 7 LOADING STATIONS, 14 HOSES, 14 VAPOR RETURN LINES AND A VAPOR RECOVERY SYSTEM

## PERMIT UNIT REQUIREMENTS

1. Operation shall be equipped with two 15 hp product transfer pumps. [District Rule 2201] Federally Enforceable Through Title V Permit
2. VOC emissions from the vapor collection and control system shall be determined using 40CFR 60.503. "Test Methods and Procedures" and EPA Reference Methods 2A, 2B, 25A and 25B and ARB Method 432, or ARB Method 2-4. After an initial compliance determination, determinations shall be made whenever an inspection reveals conditions indicative of performance less effective than that during previous compliance determinations. [District Rule 4624] Federally Enforceable Through Title V Permit
3. Loading rack shall incorporate vapor loss collection system. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Nitrogen purge system shall be a closed system such that all VOC's are displaced to the vapor control system via closed piping for reprocessing in S-2234-3. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The loading rack shall be equipped with bottom loading and a vapor collection and control system such that VOC emissions do not exceed 0.08 pounds per 1000 gallons of organic liquid with greatest vapor pressure loaded. [District Rule 4624 and Kern County Rule 413] Federally Enforceable Through Title V Permit
6. Vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum except when transferring liquefied petroleum gas. [District Rule 4624] Federally Enforceable Through Title V Permit
7. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 lb/1000 gallons loaded; or Class 2 loading facilities equipped with a system to control at least 95% of VOC displaced; and which operate so the delivery tank does not exceed 18 inches water column pressure nor 6 inches water column vacuum. [District Rule 4624] Federally Enforceable Through Title V Permit
8. Loading and vapor collection and control equipment shall be designed, installed, maintained and operated such that there are no leaks or excess organic liquid drainage at disconnection. A leak shall be defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured in accordance with EPA Method 21. Excess liquid drainage shall be defined as exceeding 10 mls per average of 3 consecutive disconnects. [District Rule 4624 and Kern County Rule 413] Federally Enforceable Through Title V Permit
9. Construction, reconstruction (as defined in District Rule 4001, amended January 19, 1995), or expansion of any top loading facility shall not be allowed. [District Rule 4624] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Analysis of halogenated exempt compounds shall be by ARB Method 432. [District Rule 4624] Federally Enforceable Through Title V Permit

11. TVP shall be measured using Reid vapor pressure ASTM Method No. D-323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 deg F, TVP may be determined by Reid Vapor pressure at 100 deg F and ARB approved calculations. [District Rule 4624] Federally Enforceable Through Title V Permit

12. TVP of crude oil with an API gravity less than 30ø as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4624] Federally Enforceable Through Title V Permit

13. During the loading of organic liquids, the operator shall perform and record the results of monthly leak inspections of the loading and vapor collection equipment at each loading arm. Leak inspections shall be conducted using sight, sound, smell and instrument methods to detect leaks. Instrument detection shall be conducted using EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases: A) Zero air (less than 10 ppm of hydrocarbon in air); and B) Mixture of methane and air at a concentration of about, but less than, 10,000 ppm methane. [District Rule 2520] Federally Enforceable Through Title V Permit

14. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect. In addition, the operator shall perform and record the results of monthly drainage inspections at disconnect for each loading arm. If no excess drainage conditions are found during five consecutive monthly inspections, the drainage inspection frequency may be changed from monthly to quarterly. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall return to monthly. [District Rule 2520] Federally Enforceable Through Title V Permit

15. Drainage inspections shall be completed before 10:00 AM the day of inspection. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520] Federally Enforceable Through Title V Permit

16. Each detected leak shall be repaired within 15 calendar days of detection. [District Rule 2520] Federally Enforceable Through Title V Permit

17. The permittee shall maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired, reasons for any leak repair interval in excess of 15 days), and E) inspector name and signature. [District Rule 2520] Federally Enforceable Through Title V Permit

18. All records necessary to determine compliance with the VOC emission limit for this unit shall be maintained for a period of at least 5 years and shall include component counts and recognized emission factors for fugitive emission sources. [District Rule 2520] Federally Enforceable Through Title V Permit

19. The loading rack's vapor collection and control system (VCCS) shall be tested annually to demonstrate the pressure in the delivery tanks being loaded complies with the requirements specified in this permit. Compliance shall be determined by calibrating and installing a liquid manometer, magnehelic device, or other instrument demonstrated to be equivalent, capable of measuring up to 500 mm water gauge pressure with a precision of + or - 2.5 mm water gauge, on the terminal's VCCS at a pressure tap as close as possible to the connection with the product tank truck. The highest instantaneous pressure measurement as well as all pressure measurements at 5 minute intervals during delivery vessel loading must be recorded. Every loading position must be tested at least once during the annual performance test. [District Rule 2520] Federally Enforceable Through Title V Permit

20. Compliance with these permit conditions in the Title V permit shall be deemed compliance with the requirements of Kern County Rule 413. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. Compliance with these permit conditions in the Title V permit shall be deemed compliance with the following requirements: District Rule 4624 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-3-22 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NE35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
LOW TEMPERATURE SEPARATION PLANT #1 INCLUDING FREE WATER KNOCKOUT(S), ACCUMULATOR(S), CHILLER(S), LOW TEMPERATURE SEPARATOR(S), DE-ETHANIZER & REBOILER, DE-BUTANIZER & REBOILER, DE-PROPANIZER & REBOILER, AND INLET HEAT EXCHANGER:

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Operation shall include two 27.5 MMBtu/hr process heaters FF-44-301 & FF-44-302 (shared with S-2234-1). The two process heater shall be equipped with selective catalytic reduction systems. [District Rules 2201, 4306] Federally Enforceable Through Title V Permit
8. Two process heaters F-44-301 & F-44-302 shall be used on a standby basis, only during periods when one or both gas turbines (S-2234-52 & '-53) are inoperative. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Fugitive VOC emission rate from the control system added to control emissions from glycol dehydrator reboiler vent, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c less than or equal to 10,000 ppm (Feb 1999), shall not exceed 0.20 lb/day. Permittee shall demonstrate compliance with specified emissions limit by calculation using the installed components and emissions factors specified above. Permittee shall maintain with the permit an accurate record by number and type of the installed fugitive components and shall make such record available for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Fugitive VOC emission rate from the propane compressor, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c less than or equal to 10,000 ppm (Feb 1999), shall not exceed 1.9 lb/day. Permittee shall demonstrate compliance with specified emissions limit by calculation using the installed components and emissions factors specified above. Permittee shall maintain with the permit an accurate record by number and type of the installed fugitive components and shall make such record available for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Control system(s) employed to control emissions from glycol dehydration system vent(s) shall be maintained in a leak free condition, as defined in Rule 4408. [District Rule 4408, Sections 3.8.2, 5.3 and 6.3.2] Federally Enforceable Through Title V Permit
12. The propane compressor shall be maintained in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4409 and shall be reported as a deviation. [District Rule 2201 and Rule 4409, Section 3.20] Federally Enforceable Through Title V Permit
13. Permittee shall maintain monthly records of amount of gas dehydrated and other records as required by Rule 4408. The permittee shall make such records readily available for District inspection upon request and shall be retained on the premises for a period of not less than five years. [District Rule 4408, Sections 6.1.1, 6.1.2 and 6.1.4] Federally Enforceable Through Title V Permit
14. Heaters shall be fired exclusively on PUC quality natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
15. Permittee shall maintain operational records of standby process heaters FF-44-301 & FF-44-302 , including date, time, and total amount of natural gas consumed. These records shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All process vessels and lines handling volatile organic compounds shall vent only to other process vessels, District-approved flare, or substrata injection system. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Total duration of process heater startup shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Total duration of process heater shutdown shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. Except during start-up and shutdown, emissions rates from process heater exhaust shall not exceed any of the following limits: 6 ppmvd NOx @ 3% O2 or 0.007 lb-NOx/MMBtu, 0.002 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 47 ppmvd @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
22. Heat exchangers utilizing cooling water shall be properly maintained to prevent VOC emissions from cooling towers. [District Rule 2201] Federally Enforceable Through Title V Permit
23. The operator shall test the circulating water from the cooling tower at least every six months to determine the concentration of hexavalent chromium. The District shall be notified 48 hours in advance of any sampling of cooling water for testing. Required testing may be discontinued and an exemption sought when two consecutive required tests show hexavalent chromium concentrations less than 0.15 mg/l. [District Rule 7012] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Source testing to measure natural gas-combustion NOx and CO emissions, and NH3 emissions, from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4102, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. Operator shall comply with other applicable requirements of District Rule 7012 (amended 12/17/92). [District Rule 7012] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

27. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

28. Continuous Emissions Monitoring (CEM) equipment shall be in place and operating whenever process heater is operating, except for CEM systems breakdowns, repairs, and required calibration checks and zero and span adjustments, in accordance with 40 CFR 60.13(e). NOx (as NO2) and O2 must be recorded continuously when the CEM equipment is operating. [District Rules 1080, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

29. Operation, calibration and data reduction for the CEM equipment shall be in accordance with the requirements of 40 CFR Part 51, 40 CFR Parts 60.7 and 60.13 (except subsection h), 40 CFR Park 60 Appendix B (Performance Specifications) and 40 CFR Part 60 Appendix F (Quality Assurance Procedures, and applicable provisions of Rule 1080 (Stack Monitoring). [District Rules 1080, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

30. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

32. Source testing shall be performed for the boilers and heaters using EPA Method 7E or ARB Method 100. Source testing shall be conducted within two year after the issuance of this Title V permit and each unit shall be tested during each year in which the unit operates 720 hours or more. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

34. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested for sulfur content (as hydrogen sulfide). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

35. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content (as hydrogen sulfide) of the gaseous fuel being fired in the unit shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

37. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

38. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

39. Continuous Emissions Monitoring System (CEMS) emissions measurements shall be averaged over a period of 15 consecutive minutes to demonstrate compliance with the applicable emission limits. Any 15-consecutive-minute block average CEMS measurement exceeding the applicable emission limits shall constitute a violation. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

40. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

41. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

42. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

43. SOx emissions shall be determined using EPA Method 6C, EPA Method 8, or ARB Method 100. [District Rule 4320] Federally Enforceable Through Title V Permit

44. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 240-87 or D 2382-88 for liquid hydrocarbon fuels;ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2, 4305, 4306, and 4320, 6.2.1] Federally Enforceable Through Title V Permit

45. NH3 emissions for source test purposes shall be determined using BAAQMD method ST-1B. [District Rule 4301] Federally Enforceable Through Title V Permit

46. {1400} The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2; County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare)] Federally Enforceable Through Title V Permit

47. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2] Federally Enforceable Through Title V Permit

48. The requirements of 40 CFR 60 Subpart LLL do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-1-21 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
LOW TEMPERATURE SEPARATION PLANT #2 INCLUDING PROCESS PUMPS, HEAT EXCHANGER(S)/COOLER(S), COOLING TOWER, FUEL GAS/LIQUID K.O. VESSEL(S) VENTED TO FLARE, AND DE-ETHANIZER, DE-BUTANIZER, DE-PROPANIZER COLUMNS VENTED TO FLARE, AND INLET HEAT EXCHANGER

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel lines to heaters F-44-301 and F-44-302 shall be physically disconnected from the units. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this dormant unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this dormant unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operation shall include refrigerant regeneration system, glycol dehydration system, and two compliant dormant 27.5 MMBtu/hr process heaters F-44-301 & F-44-302 (shared with S-2234-3). [District Rule 2201] Federally Enforceable Through Title V Permit
8. Two process heaters F-44-301 & F-44-302 shall be used on a standby basis, only during periods when one or both gas turbines (S-2234-52 & '53) are inoperative. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Fugitive VOC emission rate from the control system added to control emissions from glycol dehydrator reboiler vent, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c less than or equal to 10,000 ppm (Feb 1999), shall not exceed 0.20 lb/day. Permittee shall demonstrate compliance with specified emissions limit by calculation using the installed components and emissions factors specified above. Permittee shall maintain with the permit an accurate record by number and type of the installed fugitive components and shall make such record available for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Fugitive VOC emission rate from the propane compressor calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c less than or equal to 10,000 ppm (Feb 1999), shall not exceed 1.9 lb/day. Permittee shall demonstrate compliance with specified emissions limit by calculation using the installed components and emissions factors specified above. Permittee shall maintain with the permit an accurate record by number and type of the installed fugitive components and shall make such record available for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Control system(s) employed to control emissions from glycol dehydration system vent(s) shall be maintained in a leak free condition, as defined in Rule 4408. [District Rule 4408] Federally Enforceable Through Title V Permit
12. The propane compressor shall be maintained in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4409 and shall be reported as a deviation. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
13. Permittee shall maintain monthly records of amount of gas dehydrated and other records as required by Rule 4408. The permittee shall make such records readily available for District inspection upon request and shall be retained on the premises for a period of not less than five years. [District Rule 4408] Federally Enforceable Through Title V Permit
14. Process heaters shall be fired exclusively by PUC quality natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
15. Permittee shall maintain operational records of standby process heaters FF-44-301 & FF-44-302, including date, time, and total amount of natural gas consumed. These records shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All process vessels and lines handling volatile organic compounds shall vent only to other process vessels, District-approved flare, or substrata injection system. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Total duration of process heater startup shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Total duration of process heater shutdown shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. Except during start-up and shutdown, emissions rates from process heater exhaust shall not exceed any of the following limits: 6 ppmvd NOx @ 3% O2 or 0.007 lb-NOx/MMBtu, 0.002 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 47 ppmvd @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
22. Ammonia (NH3) emissions shall not exceed 10 ppmvd @ 3% O2 over a 15 minute averaging period. [District Rule 4102]
23. Exhaust stack shall be equipped with adequate provisions facilitating the collection of samples consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Source testing to measure natural gas-combustion NOx and CO emissions, and NH3 emissions, from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4102, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

26. Continuous Emissions Monitoring (CEM) equipment shall be in place and operating whenever process heater is operating, except for CEM systems breakdowns, repairs, and required calibration checks and zero and span adjustments, in accordance with 40 CFR 60.13(e). NOx (as NO2) and O2 must be recorded continuously when the CEM equipment is operating. [District Rules 1080, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

27. Operation, calibration and data reduction for the CEM equipment shall be in accordance with the requirements of 40 CFR Part 51, 40 CFR Parts 60.7 and 60.13 (except subsection h), 40 CFR Park 60 Appendix B (Performance Specifications) and 40 CFR Part 60 Appendix F (Quality Assurance Procedures, and applicable provisions of Rule 1080 (Stack Monitoring). [District Rules 1080, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

28. CEM records shall be retained for at least 5 years. Records shall include occurrence and duration of start-up, shutdown or malfunction; performance testing, calibrations, checks, and maintenance of CEM; and emission measurements. [District Rule 1080] Federally Enforceable Through Title V Permit

29. Daily summaries of CEM records for each calendar quarter shall be submitted to the District within 30 days of the end of the calendar quarter. Hourly fuel stack gas flow rates and/or hourly fuel flow rates shall be measured during operation and included in quarterly reports. [District Rule 1080] Federally Enforceable Through Title V Permit

30. A report shall be submitted to the District within 30 days of the end of each calendar quarter identifying the time and date of each exceedance of emission limits, the excess emissions generated, and any conversion factor used to calculate emissions. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The quarterly report shall identify each period of excess emissions that occurs during startups, shutdowns, or malfunctions. The nature and cause of each malfunction, corrective action taken, and preventative measures adopted shall also be reported. [District Rule 1080] Federally Enforceable Through Title V Permit

32. Heat exchangers utilizing cooling water shall be properly maintained to prevent VOC emissions from cooling towers. [District Rule 2201] Federally Enforceable Through Title V Permit

33. The operator shall test the circulating water from the cooling tower at least every six months to determine the concentration of hexavalent chromium. The District shall be notified 48 hours in advance of any sampling of cooling water for testing. Required testing may be discontinued and an exemption sought when two consecutive required tests show hexavalent chromium concentrations less than 0.15 mg/l. [District Rule 7012] Federally Enforceable Through Title V Permit

34. Operator shall comply with other applicable requirements of District Rule 7012 (amended 12/17/92). [District Rule 7012] Federally Enforceable Through Title V Permit

35. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

36. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

38. Continuous Emissions Monitoring System (CEMS) emissions measurements shall be averaged over a period of 15 consecutive minutes to demonstrate compliance with the applicable emission limits. Any 15-consecutive-minute block average CEMS measurement exceeding the applicable emission limits shall constitute a violation. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

39. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520] Federally Enforceable Through Title V Permit

40. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit

41. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301] Federally Enforceable Through Title V Permit

42. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

43. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

44. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, 4320] Federally Enforceable Through Title V Permit

45. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, 4320] Federally Enforceable Through Title V Permit

46. Stack gas oxygen shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

47. SOx emissions shall be determined using EPA Method 6C, EPA Method 8, or ARB Method 100. [District Rule 4320] Federally Enforceable Through Title V Permit

48. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 240-87 or D 2382-88 for liquid hydrocarbon fuels;ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rules 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

49. NH3 emissions for source test purposes shall be determined using BAAQMD method ST-1B. [District Rule 4301] Federally Enforceable Through Title V Permit

50. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520 and 4301] Federally Enforceable Through Title V Permit

51. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested for sulfur content (as hydrogen sulfide). [District Rule 2520] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

52. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit

53. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content (as hydrogen sulfide) of the gaseous fuel being fired in the unit shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520] Federally Enforceable Through Title V Permit

54. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520; County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare)] Federally Enforceable Through Title V Permit

55. The requirements of 40 CFR 60 Subpart LLL do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

DRAFT

**FACILITY:** S-2234-0-5 **EXPIRATION DATE:** 10/31/2021

DRAFT

# FACILITY-WIDE REQUIREMENTS

1. Equipment that is in vacuum service is exempt from the control and monitoring requirements and work practice standards of District Rule 4409 and applicable NSPS requirements, provided the equipment is identified as such in the Operator Management Plan. [District Rule 4409, 4.2.8 and 40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit
2. For determining compliance with applicable NSPS requirements, the test methods and procedures at 40 CFR 60.485 shall be used. Alternative test methods may be used subject to approval pursuant to 40 CFR 60.8. [40 CFR 60.8, 40 CFR 60.485] Federally Enforceable Through Title V Permit
3. For all components that are subject to applicable NSPS requirements and are included in the permit unit addendum to the operator management plan and that comply with the applicable NSPS inspection, maintenance and repair requirements as specified by the terms and condition of this permit, a Title-V permit shield is granted for applicable requirements at 40 CFR 60, Subpart KKK. [40 CFR 60, Subpart KKK] Federally Enforceable Through Title V Permit
4. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements as specified in this permit unit. [District Rule 4409, 4.2.8 and 40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit
5. For open ended lines and open ended valves, subject to applicable NSPS, each open-ended valve or line shall be sealed with two (2) valves, a blind flange, a cap, or a plug at all times, except during operations requiring process fluid flow through the valve or line. Open ended lines and valves designed to open automatically in the event of an emergency are exempt from this requirement [40 CFR 60.482-6(a) and 40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit
6. For valves subject to applicable new source performance standards (NSPS), any valve in gas/vapor service or light liquid service that is designated in the Operator Management Plan as an unsafe-to-monitor valve is exempt from the monthly NSPS leak inspection requirements, provided: 1) the owner/operator demonstrates the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence, and 2) a written plan is adhered to that requires monitoring of the valve as frequently as practicable during safe-to-monitor times and at least annually and during shutdown. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit
7. For valves subject to applicable NSPS, any valve in gas/vapor service or light liquid service that is designated in the Operator Management Plan as a difficult-to-monitor (inaccessible) valve is exempt from the monthly NSPS leak inspection requirements, provided: 1) the owner/operator demonstrates the valve cannot be monitored without elevating the monitoring personnel more than 15 feet above a support surface, or that it is over 6 feet away from a platform , 2) the process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 60.15 or if the owner/operator designates less than 3.0% of the total number of valves as difficult-to-monitor, and 3) a written plan is adhered to that, requires monitoring of the valve at least annually and during shutdown. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

8. Any components of the closed vent system that are designated as unsafe to inspect are exempt from the inspection requirements specified in this permit unit if the owner or operator complies with the following: 1) the owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with the inspection requirements; 2) the owner or operator identifies the components in the Operator Management Plan; 3) the owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times; and 4) inspection and required repair of the components is performed at least annually and during shutdown. [District Rule 4409, 5.3.7.5 and 40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit

9. For components subject to applicable NSPS, when a leak is detected, a weatherproof and readily visible tag shall be attached, bearing the equipment identification number and date which the leak is detected. The tag on a valve shall remain in place until after it has been monitored for 2 successive months and no leak has been detected. The tag on all other equipment may be removed after repair and re-inspection document compliance with the applicable NSPS. [40 CFR 60.486(b) and 60.635(b)(1)] Federally Enforceable Through Title V Permit

10. Any leak detected on the basis of sight, smell, or sound shall be identified by the operator affixing a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until repair and reinspection document compliance, whether or not operator inspection is otherwise required by this permit. [District Rule 4409, 5.3.3 and 5.3.3] Federally Enforceable Through Title V Permit

11. Any leaking component and any leak shall be repaired to a leak-free condition and reinspected within 15 calendar days. [40 CFR 60.482-7] Federally Enforceable Through Title V Permit

12. For components subject to applicable NSPS standards, except as otherwise provided by 40 CFR 60.482-9, any component leak shall be repaired to a leak-free condition, or vented to a flare satisfying the requirements of 40 CFR 60.18, or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 or EPA Method 18 within fifteen (15) calendar days of detection. A first attempt at repair shall be made no later than 5 calendar days after leak detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates necessary and sufficient actions are being taken to correct the leak within this time period. [40 CFR 60.482-2(c)(1) and (c)(2), 60.482-3(g), 60.482-7(d), 60.482-8(c), and 60.633(b)(3)] Federally Enforceable Through Title V Permit

13. For components subject to applicable NSPS, if the leaking component is an essential part of a critical process identified in the operator management plan and which cannot be immediately shut down for repairs, the operator shall minimize the leak within 15 calendar days. If the leak which has been minimized still exceeds the applicable NSPS standard, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than six months from the date of the original leak detection for pumps and one year from the date of the original leak detection for other components. Delay of repair is allowed for equipment which is isolated from the process and which does not remain in VOC service and delay of repair is is allowed pursuant to 40 CFR 60.482-2(c)(1), 40 CFR 60.482-3(g)(1), 40 CFR 60.482-4(b)(1), 40 CFR 60.482-7(d)(1),40 CFR 60.482-8(c)(1). [40 CFR 60.482- 2(c)(1), 40 CFR 40 CFR 60.482-3(g)(1), 40 CFR 60.482-4(b)(1), 40 CFR 60.482-7(d)(1),40 CFR 60.482-8(c)(1), 60.482-9(a) and (b)] Federally Enforceable Through Title V Permit

14. Delay of repair of a closed vent system for which leaks have been detected is allowed if the closed vent system is an essential part of a critical process identified in the operator management plan which cannot be immediately shut down for repairs or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. However the operator shall minimize the leak within 15 calendar days. If the leak which has been minimized still exceeds the limit in this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. [40 CFR 60.482-9] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

15. For the purpose of determining compliance with applicable NSPS, each operator shall maintain an inspection log for the components subject to NSPS inspection requirements that contains the following information: 1) instrument, operator, and equipment identification numbers; 2) date of leak detection; 3) dates and repair method of each attempt to repair the leak; 4) "above 10,000" if the maximum instrument reading after each repair attempt is equal to or greater than 10,000 ppm; 5) "repair delayed", reason for delay, signature of individual whose decision it was that repair could not be effected without a process shutdown, and expected date of successful repair if a leak is not repaired within 15 days of detection; 6) dates of process unit shutdown that occur while the equipment is unrepaired; 7) date of successful repair and emission level of recheck after leak is repaired. [40 CFR 60.486(c) and 60.635(2)(i) through (ix)] Federally Enforceable Through Title V Permit

16. Each piece of equipment subject to requirements of this permit is presumed to be in VOC service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VOC service or in wet gas service. For a piece of equipment to be considered not in VOC service, it must be determined that the VOC content can be reasonably expected never to exceed 10.0 percent by weight. For a piece of equipment to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. For purposes of determining the percent VOC content of the process fluid that is contained in or contacts a piece of equipment, procedures that conform to the methods described this permit shall be used. [40 CFR 60.485(d) and 60.632(f)] Federally Enforceable Through Title V Permit

17. Compliance the no detectable emission standards for this permit unit shall be determined as follows: 1) EPA Method 21 shall be followed, 2) Method 21 shall be used to determine the background level and all potential leak interfaces shall be traversed as close to the inter face as possible, and 3) the arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm to determine compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit

18. For valves subject to applicable NSPS, if the operator elects to comply with the allowable percentage of leaking valves then for this permit unit, the operator shall notify the APCO 90 days before implementing these alternatives. [40 CFR 60.483-1(b)(1) and (d), 60. 483-2(a)(2), and 60.487(d)] Federally Enforceable Through Title V Permit

19. For valves subject to applicable NSPS, if the allowable percentage of leaking valves is selected, then a performance test shall be conducted initially upon designation for allowable percentage of leaking valves, annually, and at other times requested by the APCO. The performance test shall be conducted as follows: 1) all valves in gas/vapor and light liquid service shall be monitored within 1 week using EPA Method 21 and 2) the leak percentage shall be determined by dividing the number of leaking valves detected and valves for which repair has been delayed by the number of valves in gas/vapor and light liquid service in this permit unit, 3) a record must be kept of the percent of valves found leaking during each leak detection period. [40 CFR 60.483-1(b)(2) and (c) and 60. 483-2(b)(5) and (6)] Federally Enforceable Through Title V Permit

20. For compressors subject to applicable NSPS, each compressor shall meet the applicable control system requirements of 40 CFR 482-3(a) - (i), except as otherwise provided by 40 CFR 60.482-1(c) and 40 CFR 60.482-3(h) and (i). [40 CFR 60.482-3(a) through (j)], 40 CFR 60.482-1(c), 40 CFR 60.482-3(h) and (i), and 40 CFR 60.633] Federally Enforceable Through Title V Permit

21. Compressors that are subject to applicable NSPS, are exempt from requirements of 40 CFR 60.482-3(a) and 40 CFR 60.482-3(b) if the compressor is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process fuel gas system or a control device. Closed vent systems piping shall comply with applicable requirements at 40 CFR 60.482-10. Closed vent vapor recovery systems shall comply with design requirements at 40 CFR 60.482-10(b). Enclosed combustion devices used by closed vent system shall comply with design requirements at 40 CFR 60.482-10(c). Flares used by closed vent systems shall comply with requirements at 40 CFR 60.482-10(d). Closed vent system control devices shall comply with monitoring requirements at 40 CFR 60.482-10(e). [40 CFR 60 .482-3, 40 CFR 60.482-10] Federally Enforceable Through Title V Permit

22. Compressors that are subject to applicable NSPS and are designated in the Operator Management Plan for no detectable leak emission, as indicated by an instrument reading of less than 500 ppm above background, is are exempt from the requirements of 40 CFR 482-3(a)-(h), provided the compressor is tested for compliance with no detectable emissions initially upon designation, annually, and at other times requested by the APCO. [40 CFR 60.482-3(i)] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

23. When determining compliance with applicable NSPS, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected. [40 CFR 60.633(b)(2), 40482-7(a), (b), and (c] Federally Enforceable Through Title V Permit

24. For open ended lines or valves subject to applicable NSPS, each open-ended valve or line equipped with a second valve shall be operated so that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit

25. For equipment subject to applicable NSPS when a double block-and-bleed system is being used, the bleed valve or line may remain open only during operations that require venting the line between the block valves. [40 CFR 60.482-6(c)] Federally Enforceable Through Title V Permit

26. Except as provided by applicable NSPS, valves that are subject to NSPS that are in gas/vapor service or light liquid service shall be monitored monthly to detect leaks using EPA Method 21. Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter. If a leak is subsequently detected, monitoring shall revert to monthly. [40 CFR 60.482-7(a), (b), and (c)] Federally Enforceable Through Title V Permit

27. Any valve in gas/vapor service or light liquid service that is designated in the equipment log list for no detectable leak emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the monitoring requirements of 40 CFR 60.482-7(a), provided the valve: 1) has no external actuating mechanism in contact with the process fluid and 2) is tested for and meets compliance with no detectable leak emission initially upon designation, annually and at other times requested by the APCO. [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit

28. For valves subject to applicable NSPS requirements, for a valve in gas/vapor service or light or heavy liquid service, first attempts at repair shall include the following where practicable: 1) tightening of bonnet bolts, 2) replacement of bonnet bolts, 3) tightening of packing gland nuts, and 4) injection of lubricant into lubricant packing. [40 CFR 60.482-7(e) and 60.482-8(d)] Federally Enforceable Through Title V Permit

29. For pumps and valves in heavy liquid service, pressure relief devices in light or heavy liquid service, and flanges and other connectors, that are subject to applicable NSPS requirements, if evidence of a potential leak is found by sight, sound, smell, or any other detection method then the device shall be monitored within 5 days for leak detection in accordance with EPA Method 21. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit

30. In addition to the information required by Rule 4409, the operator management plan shall include an addendum for this permit unit containing the following applicable NSPS information: 1) list of identification numbers for equipment subject to the applicable NSPS requirements, 2) list of identification numbers for equipment which is designated for no detectable emissions and which is signed by the owner/operator, 3) list of equipment identification numbers for pressure relief devices which must be operated with no detectable emissions, 4) dates of each compliance test for emissions below 500 ppm, for all equipment subject to this no detectable emission limit and the background level measured and the maximum instrument reading measured at the equipment, during each test, and 5) list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e) and 60.635(b)(2)(x)] Federally Enforceable Through Title V Permit

31. In addition to the information required by Rule 4409, the operator management plan shall include an addendum for this permit unit containing the following applicable NSPS information: for valves in gas/vapor service and light liquid service: 1) a list of identification numbers for valves designated "unsafe-to-monitor" and for valves designated "difficult-to monitor", 2) an explanation for each valve stating why it is so designated, and 3) the schedule for monitoring each such valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit

32. For valves subject to NSPS annual leak detection alternative requirements, the NSPS inspection log shall include the following information: 1) a schedule of monitoring and 2) the percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit

33. A log containing the following information for pumps and compressors equipped a barrier fluid seal system which includes a seal failure sensor, for which a system failure criteria is required to be established, pursuant to the requirements for this permit unit, shall be maintained and kept in a readily accessible location: 1) the design criterion required by this permit and an explanation and 2) any changes to this criterion and reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

34. For equipment (compressors and components) subject to applicable NSPS, the operator shall maintain information and data used to demonstrate that a piece of equipment is not in VOC service and information and data used to demonstrate that a reciprocating compressor is in wet gas service. The information shall be included in the NSPS inspection log for the permit unit and shall be kept in a readily accessible location. [40 CFR 60.486(j) and 60.635(c)] Federally Enforceable Through Title V Permit

35. Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit

36. Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 øC. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit

37. If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall conduct an initial inspection according to the procedures specified in EPA Method 21 using the calibration gases as specified in the requirements for this permit unit. The owner or operator shall also conduct annual visual inspections for visible, audible, or olfactory indications of leaks. [40 CFR 60.482-10(f)(1) and 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

38. If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall conduct an initial inspection and annual inspections according to the procedures specified in EPA Method 21 using the calibration gases as specified in the requirements for this permit unit. The owner or operator shall also conduct annual visual inspections for visible, audible, or olfactory indications of leaks. [40 CFR 60.482-10(f)(2) and 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

39. Any parts of the closed vent system that are designated as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1) and (f)(2) if the owner or operator complies with the following: 1) the owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and 2) the process unit within which the closed vent system is located becomes an affected facility through modification or reconstruction, as defined in 40 CFR 60.14 and 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and 3) the owner or operator has a written plan that requires inspection of the equipment at least every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum. [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit

40. Closed vent systems and control devices shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit

41. A log shall be maintained containing the following information: 1) identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) for each inspection conducted in accordance with EPA Method 21 during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 4) for each visual inspection conducted for visible, audible, or olfactory indications of leaks during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l) and 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

42. For components subject to applicable NSPS requirements, semiannual reports shall be submitted to the APCO containing the following information: 1) process unit identification, 2) for each month during the reporting period, number of valves, pumps, compressors, and pressure relief devices for which leaks were detected; number of valves, pumps, compressors, and pressure relief devices for which leaks were not repaired within 15 days and a first attempt not made within 5 days of leak detection; the facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible 3) dates of process unit shutdowns which occurred within the reporting period, and 4) revisions to items reported in the initial or subsequent semiannual reports. [40 CFR 60.487(a) and (c) and 60.636(c)] Federally Enforceable Through Title V Permit

43. {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit

44. {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit

45. {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit

46. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (8/11/11). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit

47. {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.13.1] Federally Enforceable Through Title V Permit

48. {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit

49. {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit

50. {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

51. {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

52. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

53. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit

54. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit

55. {4374} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit

56. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit

57. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit

58. {4377} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit

59. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit

60. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit

61. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit

62. {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit

63. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit

64. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

65. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table 1 or Table 2 of District Rule 4601 (4/16/20) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit

66. All VOC-containing materials subject to Rule 4601 (4/16/20) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit

67. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (4/16/20). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit

68. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit

69. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit

70. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit

71. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit

72. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8031] Federally Enforceable Through Title V Permit

73. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8041] Federally Enforceable Through Title V Permit

74. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit

75. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit

76. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit

77. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

78. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit

79. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit

80. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit

81. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

82. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (4/16/20); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

83. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

84. {3321} The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

85. {3322} For valves, threaded connections, flanges, pipes, pumps, compressors, and other components not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

86. {3323} For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

87. {3324} For polished rod stuffing boxes (PRSBs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

88. {3325} Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.2] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

89. {3326} Minor gas leaks from PRSBs detected during any District inspection shall not be counted toward determination of compliance with this rule provided the permittee repairs, replaces, or removes leaking PRSBs from VOC service as soon as practicable but not later than seven calendar days. [District Rule 4409, 5.1.3.1.2] Federally Enforceable Through Title V Permit

90. {3327} Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2] Federally Enforceable Through Title V Permit

91. {3328} Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3] Federally Enforceable Through Title V Permit

92. {3329} An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1] Federally Enforceable Through Title V Permit

93. {3330} A leak from a component is when there is a major liquid leak from the component. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2] Federally Enforceable Through Title V Permit

94. {3331} A leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3] Federally Enforceable Through Title V Permit

95. {3332} A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

96. {3333} When 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

97. {3334} When 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

98. {3335} When 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

99. {3336} When 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

100. {3337} When compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

101. {3338} When 200 or fewer PRSBs are inspected, a leak is when more than four have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 PRSBs are inspected, a leak is when more than 2.0 % (rounded up to the nearest whole number) of the PRSBs have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

102. {3339} When 200 or fewer wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than two or more pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than 1.0 % (rounded up to the nearest whole number) of the pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

103. {3340} When pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

104. {3341} For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1] Federally Enforceable Through Title V Permit

105. {3342} For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2] Federally Enforceable Through Title V Permit

106. {3343} All accessible operating pumps, compressors, and PRDs, in service, that are found to be leaking by audio-visual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3] Federally Enforceable Through Title V Permit

107. {3344} Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4] Federally Enforceable Through Title V Permit

108. {3345} All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5] Federally Enforceable Through Title V Permit

109. {3346} All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6] Federally Enforceable Through Title V Permit

110. {3347} All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7] Federally Enforceable Through Title V Permit

111. {3348} All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

112. {3349} All pipes, in service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1] Federally Enforceable Through Title V Permit

113. {3350} The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non- Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2] Federally Enforceable Through Title V Permit

114. {3351} Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10] Federally Enforceable Through Title V Permit

115. {3352} The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11] Federally Enforceable Through Title V Permit

116. {3353} A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12] Federally Enforceable Through Title V Permit

117. {3354} Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13] Federally Enforceable Through Title V Permit

118. {3355} District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14] Federally Enforceable Through Title V Permit

119. {3356} The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4409, 5.3.1] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

120. {3357} The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit

121. {3358} The operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit

122. {3359} For each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5] Federally Enforceable Through Title V Permit

123. {3360} If a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6] Federally Enforceable Through Title V Permit

124. {3361} For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options 1a through 1f require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: 1a) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; 1b) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; 1e) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

125. {3362} All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1] Federally Enforceable Through Title V Permit

126. {3363} The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2] Federally Enforceable Through Title V Permit

127. {3364} By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4] Federally Enforceable Through Title V Permit

128. {3365} The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1] Federally Enforceable Through Title V Permit

129. {3366} Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2] Federally Enforceable Through Title V Permit

130. {3367} Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3] Federally Enforceable Through Title V Permit

131. All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rules 1070 and 2520, 9.4] Federally Enforceable Through Title V Permit

132. {3369} All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rule 4409, 6.3.1] Federally Enforceable Through Title V Permit

133. {3370} The VOC content by weight percent shall be determined using ASTM D-1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4409, 6.3.2] Federally Enforceable Through Title V Permit

134. {3371} The percent by volume liquid evaporated at 302 øF (150 øC) shall be determined using ASTM D-86. [District Rule 4409, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

135. {3372} The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D-323, and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures specified in Appendix A of District Rule 4409. [District Rule 4409, 6.3.4] Federally Enforceable Through Title V Permit

136. {3373} The API gravity of crude oil or petroleum distillate shall be determined by using ASTM D-287 or ASTM 1298. Sampling for API gravity shall be performed in accordance with ASTM D-4057. [District Rule 4409, 6.3.5] Federally Enforceable Through Title V Permit

137. {3374} The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4409, 6.3.6] Federally Enforceable Through Title V Permit

138. {3375} Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7] Federally Enforceable Through Title V Permit

139. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin April 30 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-249-2 **EXPIRATION DATE:** 10/31/2021

**SECTION:** SE 14 **TOWNSHIP:** 30S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**
2000 GALLON HORIZONTAL DRAIN TANK EQUIPPED WITH A PRESSURE/VACUUM DEVICE TO BE USED BY AN OPEN DRAIN SYSTEM

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
4. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive VOC emissions shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Monthly average daily throughput shall not exceed 285 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall conduct TVP and API gravity testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
9. TVP of an organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D323-94 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedure listed in Appendix B of Rule 4623. Should the permittee determine that another method is more appropriate for TVP testing, the methodology must be approved by the District and US EPA prior to its use. [District Rule 4623] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. Should the permittee determine that another method is more appropriate for TVP testing, the methodology must be approved by the District and US EPA prior to its use. [District Rule 4623] Federally Enforceable Through Title V Permit
11. TVP and API gravity test records shall be submitted to the District within 45 days after the date of testing. The record shall include the tank identification number, permit number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
12. The permittee shall keep accurate records of each organic liquid stored in the tank, including its throughput, storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
13. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-247-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** SE 14 **TOWNSHIP:** 30S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**
68 MMBTU/HR VERTICALLY ORIENTED PROCESS HEATER (HOT OIL HEATER) EQUIPPED WITH COEN RMB ULTRA LOW NOX BURNER

DRAFT

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. {4562} Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. {4560} While dormant, normal source testing shall not be required. [District Rule 2080]
4. {4563} Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. {4564} Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. {4565} Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. Hot oil heater shall only be fired on natural gas with a sulfur content not exceeding 1.0 gr S/100scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.0085 lb-NOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0054 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Permittee shall measure sulfur content of gas used as fuel in heater at least once every year. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 2201, 4320, and 4801] Federally Enforceable Through Title V Permit
13. Permittee shall determine sulfur content of gas combusted in heater using ASTM method D3246 or double GC for H2S and mercaptans. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
16. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
17. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
22. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
24. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-246-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** SE 14 **TOWNSHIP:** 30S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**
ELECTRICALLY HEATED GLYCOL DEHYDRATION UNIT WITH VAPORS FROM FLASH VESSEL AND STILL VENT ROUTED TO PROCESS SYSTEM INCLUDING OTHER MISCELLANEOUS EQUIPMENT SUCH AS FILTERS, HEAT EXCHANGERS, PUMPS AND VESSELS

DRAFT

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
4. This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas service shall not exceed 6.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of the non-condensable vapors shall not exceed 23% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall test VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
12. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-245-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** SE 14 **TOWNSHIP:** 30S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**
AMINE TREATING SYSTEM WITH AMINE CONTACTOR; AMINE REGENERATION SYSTEM WITH RE-BOILER HEATED BY HOT OIL SYSTEM; WITH FLASH VESSEL AND AMINE REGENERATION OVERHEAD VAPORS ROUTED TO PROCESS SYSTEM INCLUDING OTHER MISCELLANEOUS EQUIPMENT SUCH AS FILTERS, HEAT EXCHANGERS, PUMPS AND VESSELS

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
4. This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas service shall not exceed 7.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of the non-condensable vapors shall not exceed 23% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall test VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit

12. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-235-6 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
250 MMSCF/DAY SMOKELESS VARIABLE CONE SONIC FLARE WITH FLARE HEADER AND FLARE KNOCK OUT DRUM

DRAFT

## PERMIT UNIT REQUIREMENTS

1. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of vent gas combusted in the flare shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
2. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of pilot gas combusted shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
4. This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas service shall not exceed 1.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of gas processed shall not exceed 16% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall test and maintain records of VOC content of gas processed no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Flare shall not operate with visible emissions darker than 5% opacity or 1/4 Ringelmann for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
12. A flame shall be present at all times when combustible gases are vented through this flare. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Flare shall be equipped with continuous pilot light or automatic re-ignition provisions. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Sulfur compound concentration of gas combusted shall not exceed 1.0 gr S/100 scf (16.9 ppmv H2S). [District Rule 2201] Federally Enforceable Through Title V Permit
15. Only natural gas with a sulfur content not exceeding 1.0 gr S/100scf shall be used as pilot fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Vent gas emission rates from this unit shall not exceed any of the following limits: NOx - 0.068 lb/MMBtu; VOC - 0.063 lb/MMBtu; CO - 0.37 lb/MMBtu; PM10 - 0.008 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Pilot emission rates from this unit shall not exceed any of the following limits: NOx - 0.0094 lb/MMBtu; VOC - 0.0055 lb/MMBtu; CO - 0.04 lb/MMBtu; PM10 - 0.076 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 30,938 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 185,625 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 2,103.8 lb-NOx; 88.2 lb-SOx; 247.5 lb-PM10; 11,447.1 lb-CO; 1,949.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 12,623 lb-NOx; 529 lb-SOx; 1,485 lb-PM10; 68,681 lb-CO; 11,694 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 110 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 40,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 10.3 lb-NOx; 0.3 lb-SOx; 0.8 lb-PM10; 4.4 lb- CO; 0.6 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 3,760 lb-NOx; 114 lb-SOx; 304 lb-PM10; 1,600 lb-CO; 220 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit
27. Permittee shall measure sulfur content of gas incinerated in flare within 60 days of startup and at least once every year thereafter. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
28. Permittee shall determine sulfur content of gas flared using ASTM method D3246 or double GC for H2S and mercaptans. [District Rule 2201] Federally Enforceable Through Title V Permit
29. The higher heating value of the flared gas shall be monitored at least quarterly. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
30. Permittee shall keep accurate records of daily and annual quantity of gas combusted. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201] Federally Enforceable Through Title V Permit
32. When combustible gases are vented to the flare, flare shall be equipped with a heat sensing device to detect the presence of a propane or natural gas pilot flame which is burning at all times. [District Rule 4311]
33. Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK and District Rule 4409] Federally Enforceable Through Title V Permit
34. Permittee shall keep accurate daily records of flare vent gas and pilot gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201]
35. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-215-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,680 BHP NATURAL GAS-FIRED WAUKESHA MODEL L7044GSI IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (K-4) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
4. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The permittee shall install and operate a nonresettable elapsed operating time meter. The time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
7. The permittee shall install and operate a nonresettable fuel flow meter. The fuel meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
8. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
9. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.012 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
11. VOC fugitive emissions from the components in gas service associated with the compressor shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall maintain accurate component count for compressor according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The fuel consumption for this engine shall not exceed 114.2 MMscf per calendar year. Compliance with this limit may be shown by a record of the annul fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
15. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
16. If the engine is fired on any fuel gas other than PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, D4084, Double GC for H2S and mercaptans, or alternative test method with prior written approval from the APCO. [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the engine is fired on any fuel gas other than PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this engine shall be conducted not less than once every 12 months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
19. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
21. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; VOC - EPA Method 18, 25A, 25B, or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
23. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit
25. This engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications and the Rule 4702 Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit
26. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

27. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1 and 5.6.9] Federally Enforceable Through Title V Permit

28. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 5.6.1] Federally Enforceable Through Title V Permit

29. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.1 and 5.6.9] Federally Enforceable Through Title V Permit

30. The permittee shall maintain records of: (1) the date and time of NOx CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

31. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070]

32. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

34. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 1070, 2201 and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-214-9 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-42) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

DRAFT

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
13. The permittee shall install and operate a nonresettable fuel flow meter. The fuel meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE



DRAFT

14. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit

15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

16. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.012 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit

17. VOC fugitive emissions from the components in gas service associated with the compressor shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Permittee shall maintain accurate component count for compressor according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The fuel consumption for this engine shall not exceed 114.2 MMscf per calendar year. Compliance with this limit may be shown by a record of the annul fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit

20. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit

21. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit

22. If the engine is fired on any fuel gas other than PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, D4084, Double GC for H2S and mercaptans, or alternative test method with prior written approval from the APCO. [District Rule 2201] Federally Enforceable Through Title V Permit

23. If the engine is fired on any fuel gas other than PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this engine shall be conducted not less than once every 12 months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

25. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

30. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

31. This engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications and the Rule 4702 Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

33. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

34. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

35. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

36. The permittee shall maintain records of: (1) the date and time of NOx CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

37. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070]

38. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

40. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 1070, 2201 and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

41. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

42. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

43. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

44. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

45. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

46. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-213-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** SE14 **TOWNSHIP:** 30S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**
WET GAS COMPRESSOR 14Z STATION INCLUDING THE FOLLOWING PROCESS SYSTEMS INCLUDING A GAS INLET/CHILLER, GLYCOL DEHYDRATION SYSTEM AND JOULE-THOMPSON UNIT:

DRAFT

## PERMIT UNIT REQUIREMENTS

1. 14Z Station Gas Inlet/Chiller System shall consist of inlet cooler, inlet separator, gas chiller, refrigerant reclaimer, refrigerant subcooler, refrigerant economizer, refrigerant suction scrubber, refrigerant accumulator, refrigerant condenser, refrigerant compressors (S-2234-200, -201, -202 and -203), oil separator, pumps and filters, pump down compressor, lube oil storage tank, lube oil pump, emergency vent stacks, propane loading station and drain tank. [District Rule 2201] Federally Enforceable Through Title V Permit
2. 14Z Glycol Dehydration System shall consist of glycol dehydration skid mounted unit with a glycol contactor, a separator coalescer, several glycol heat exchangers, a reboiler/regenerator equipped with 4.7 MMBtu/hr burner, a glycol surge tank, a flash separator, a lean/rich glycol exchanger, and various pumps and filters, with process vent connected to existing vacuum gas gathering system (S-2234-194) and Jatco BTEX System with condenser. [District Rule 2201] Federally Enforceable Through Title V Permit
3. 14Z Joule-Thomson Unit shall consist of gas/gas exchangers, gas/liquid exchanger and cold separator. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions shall not exceed 4.22 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
9. Only glycol shall be used as the dehydration medium. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Condensate handling shall be conducted in closed systems resulting in fugitive component emissions only. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. VOC control efficiency shall be no less than 95% by weight. [District Rule 4408] Federally Enforceable Through Title V Permit
12. Permittee shall maintain daily and monthly records of gas dehydrated and records including those listed in Rule 4408 Section 6.1.2. The permittee shall make such records readily available for District inspection upon request and shall be retained on the premises for a period of not less than five years. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
13. Permittee shall maintain records of component leak inspections and repairs in accordance with Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit
14. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-212-9 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-47) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
13. The permittee shall install and operate a nonresettable fuel flow meter. The fuel meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit

15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

16. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.012 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit

17. VOC fugitive emissions from the components in gas service associated with the compressor shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Permittee shall maintain accurate component count for compressor according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The fuel consumption for this engine shall not exceed 114.2 MMscf per calendar year. Compliance with this limit may be shown by a record of the annul fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit

20. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit

21. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit

22. If the engine is fired on any fuel gas other than PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, D4084, Double GC for H2S and mercaptans, or alternative test method with prior written approval from the APCO. [District Rule 2201] Federally Enforceable Through Title V Permit

23. If the engine is fired on any fuel gas other than PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this engine shall be conducted not less than once every 12 months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

25. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

30. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

31. This engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications and the Rule 4702 Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

33. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

34. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

35. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

36. The permittee shall maintain records of: (1) the date and time of NOx CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

37. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070]

38. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

40. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 1070, 2201 and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

41. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

42. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

43. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

44. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

45. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

46. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-211-8 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 28 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-6) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
13. The permittee shall install and operate a nonresettable fuel flow meter. The fuel meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit

15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

16. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.012 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit

17. VOC fugitive emissions from the components in gas service associated with the compressor shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Permittee shall maintain accurate component count for compressor according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The fuel consumption for this engine shall not exceed 241,600 scf/day. Compliance with this limit may be shown by dividing the quantity of fuel used during a calendar month over the number of days operated during that month. [District Rule 2201] Federally Enforceable Through Title V Permit

20. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit

21. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit

22. If the engine is fired on any fuel gas other than PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, D4084, Double GC for H2S and mercaptans, or alternative test method with prior written approval from the APCO. [District Rule 2201] Federally Enforceable Through Title V Permit

23. If the engine is fired on any fuel gas other than PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this engine shall be conducted not less than once every 12 months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

25. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

30. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

31. This engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications and the Rule 4702 Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

33. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

34. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

35. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

36. The permittee shall maintain records of: (1) the date and time of NOx CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

37. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070]

38. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

40. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 1070, 2201 and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-209-8 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 27 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-3) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

DRAFT

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
13. The permittee shall install and operate a nonresettable fuel flow meter. The fuel meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE



DRAFT

14. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit

15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

16. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.012 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit

17. VOC fugitive emissions from the components in gas service associated with the compressor shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Permittee shall maintain accurate component count for compressor according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The fuel consumption for this engine shall not exceed 241,600 scf/day. Compliance with this limit may be shown by dividing the quantity of fuel used during a calendar month over the number of days operated during that month. [District Rule 2201] Federally Enforceable Through Title V Permit

20. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit

21. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit

22. If the engine is fired on any fuel gas other than PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, D4084, Double GC for H2S and mercaptans, or alternative test method with prior written approval from the APCO. [District Rule 2201] Federally Enforceable Through Title V Permit

23. If the engine is fired on any fuel gas other than PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this engine shall be conducted not less than once every 12 months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

25. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

30. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

31. This engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications and the Rule 4702 Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

33. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

34. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

35. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.1 and 5.6.9] Federally Enforceable Through Title V Permit

36. The permittee shall maintain records of: (1) the date and time of NOx CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

37. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070]

38. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

40. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 1070, 2201 and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-206-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 2 **TOWNSHIP:** 31S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
762 BHP CATERPILLAR MODEL C15 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
4. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, 17 CCR 93115, 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
5. Emissions from this IC engine shall not exceed any of the following limits: 4.5 g-NOx/bhp-hr, 2.6 g-CO/bhp-hr, or 0.3 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
6. Emissions from this IC engine shall not exceed 0.15 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
7. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702, 17 CCR 93115 and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
9. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
10. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit

12. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

13. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-205-6 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 34 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #2 PLANT

DRAFT

## PERMIT UNIT REQUIREMENTS

1. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of vent gas combusted in the flare shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
2. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of pilot gas combusted shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
3. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
6. The flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
7. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present, shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
8. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
9. Vent gas emission rates from this unit shall not exceed any of the following limits: 0.068 lb-NOx/MMBtu; 0.00285 lb-SOx/MMBtu; 0.008 lb-PM10/MMBtu; 0.37 lb-CO/MMBtu; or 0.063 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Pilot emission rates from this unit shall not exceed any of the following limits: NOx - 0.0094 lb/MMBtu; VOC - 0.0055 lb/MMBtu; CO - 0.04 lb/MMBtu; PM10 - 0.076 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 30,938 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 185,625 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 2,103.8 lb-NOx; 88.2 lb-SOx; 247.5 lb-PM10; 11,447.1 lb-CO; 1,949.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 12,623 lb-NOx; 529 lb-SOx; 1,485 lb-PM10; 68,681 lb-CO; 11,694 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 110 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 40,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 10.3 lb-NOx; 0.3 lb-SOx; 0.8 lb-PM10; 4.4 lb- CO; 0.6 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 3,760 lb-NOx; 114 lb-SOx; 304 lb-PM10; 1,600 lb-CO; 220 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

20. Operators subject to vent gas composition monitoring requirements shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA: Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

21. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

22. Vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 6.3.4] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The operator shall monitor vent gas composition using one of the following five methods as appropriate. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis. 1) Sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours. (b) Samples shall be analyzed using approved test methods; or 2) Integrated sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less. (b) Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample container is full. If sampling is still required pursuant to part (a), a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours. (c) Samples shall be analyzed using approved test methods; or 3) Continuous analyzers that meet the following requirements: (a) The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur. (b) The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon. (c) Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale; or 4). Continuous analyzers employing gas chromatography that meet the following requirements: (a) The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide. (b) The gas chromatography system shall be maintained to be accurate within 5% of full scale; or 5) Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested using approved test methods. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

24. Permittee shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit

25. The operator of a flare with a water seal shall monitor and record the water level and pressure of the water seal daily or as specified on the Permit to Operate. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit

26. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

27. During periods of inoperation of continuous analyzers or auto-samplers, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

28. Permittee shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

29. Permittee shall keep accurate daily records of flare vent gas and pilot gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201]

30. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE



DRAFT

31. Permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-204-6 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #1 PLANT

## PERMIT UNIT REQUIREMENTS

1. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of vent gas combusted in the flare shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
2. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of pilot gas combusted shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
3. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
6. The flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
7. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present, shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
8. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
9. Vent gas emission rates from this unit shall not exceed any of the following limits: 0.068 lb-NOx/MMBtu; 0.00285 lb-SOx/MMBtu; 0.008 lb-PM10/MMBtu; 0.37 lb-CO/MMBtu; or 0.063 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Pilot emission rates from this unit shall not exceed any of the following limits: NOx - 0.0094 lb/MMBtu; VOC - 0.0055 lb/MMBtu; CO - 0.04 lb/MMBtu; PM10 - 0.076 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 30,938 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 185,625 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 2,103.8 lb-NOx; 88.2 lb-SOx; 247.5 lb-PM10; 11,447.1 lb-CO; 1,949.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 12,623 lb-NOx; 529 lb-SOx; 1,485 lb-PM10; 68,681 lb-CO; 11,694 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 110 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 40,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 10.3 lb-NOx; 0.3 lb-SOx; 0.8 lb-PM10; 4.4 lb- CO; 0.6 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 3,760 lb-NOx; 114 lb-SOx; 304 lb-PM10; 1,600 lb-CO; 220 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

20. Operators subject to vent gas composition monitoring requirements shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA: Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

21. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

22. Vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 6.3.4] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The operator shall monitor vent gas composition using one of the following five methods as appropriate. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis. 1) Sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours. (b) Samples shall be analyzed using approved test methods; or 2) Integrated sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less. (b) Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample container is full. If sampling is still required pursuant to part (a), a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours. (c) Samples shall be analyzed using approved test methods; or 3) Continuous analyzers that meet the following requirements: (a) The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur. (b) The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon. (c) Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale; or 4). Continuous analyzers employing gas chromatography that meet the following requirements: (a) The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide. (b) The gas chromatography system shall be maintained to be accurate within 5% of full scale; or 5) Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested using approved test methods. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

24. Permittee shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit

25. The operator of a flare with a water seal shall monitor and record the water level and pressure of the water seal daily or as specified on the Permit to Operate. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit

26. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

27. During periods of inoperation of continuous analyzers or auto-samplers, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

28. Permittee shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

29. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

30. Permittee shall keep accurate daily records of flare vent gas and pilot gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201]

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. The permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-203-5 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-56) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-202-5 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-55) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-201-5 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-107) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-200-5 **EXPIRATION DATE:** 10/31/2021

DRAFT

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (R-22) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

DRAFT

**PERMIT UNIT:** S-2234-195-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
METHANOL UNLOADING, STORAGE, AND LOADING OPERATION CONSISTING OF A 430 BBL STORAGE VESSEL CONTROLLED WITH A GAS BLANKET SYSTEM, AND AN UNLOADING RACK, LOADING RACK, AND METHANOL INJECTION PUMPS:

## PERMIT UNIT REQUIREMENTS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Methanol received by the unloading operation shall be stored in the storage vessel until such time it is injected into the gas gathering system, or until such time it is loaded into tank trucks or trailers with a storage capacity of not less than 2,520 gallons. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.27 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. There shall be no leaks in excess of 10,000 ppmv from either fugitive components or the pressure relief valve on the tank trucks when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. The vapor space of the methanol storage vessel shall be vented to the gas gathering system. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. Any gauging or sampling device on the methanol storage vessel shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. The methanol loading and unloading racks shall be designed, installed, maintained, and operated such that there are no leaks or excess organic liquid drainage at disconnections. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Excess organic liquid drainage is defined as organic liquid drainage greater than 10 mL per disconnect. [District Rule 2201] Federally Enforceable Through Title V Permit
9. There shall be no more than 10 disconnects per day from loading and unloading operations combined. [District Rule 2201] Federally Enforceable Through Title V Permit
10. VOC emissions from disconnects shall not exceed 0.17 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Tank trucks or trailers receiving methanol from the loading rack shall be equipped with a pressure relief valve set to at least 35 psig positive pressure, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Tank trucks or trailers receiving methanol from the loading rack shall not contain more than 1,600 gallons of methanol when a loading operation is complete. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The pressure relief valve on the tank trucks or trailers shall not vent during loading operations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The combined volume of methanol loaded into tank trucks or trailers and unloaded into tanks shall not exceed 4,000 gallons in any one day. [District Rule 4624] Federally Enforceable Through Title V Permit
15. The operator shall maintain daily records of the quantity of methanol loaded into tank trucks and/or trailers and unloaded into tanks after each loading and unloading operation is completed. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit
16. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
17. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

DRAFT

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-194-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** SE14 **TOWNSHIP:** 30S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**
GLYCOL DEHYDRATION SKID MOUNTED UNIT WITH A GLYCOL CONTACTOR, A SEPARATOR COALESCER, SEVERAL GLYCOL HEAT EXCHANGERS, A REBOILER/REGENERATOR EQUIPPED WITH 4.7 MMBTU/HR BURNER, A GLYCOL SURGE TANK, A FLASH SEPARATOR, A LEAN/RICH GLYCOL EXCHANGER, AND VARIOUS PUMPS AND FILTERS, WITH PROCESS VENT CONNECTED TO EXISTING VACUUM GAS GATHERING SYSTEM

DRAFT

## PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Only glycol shall be used as the dehydration medium. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Condensate handling shall be conducted in closed systems resulting in fugitive component emissions only. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC control efficiency shall be no less than 95% by weight. [District Rule 4408] Federally Enforceable Through Title V Permit
6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
7. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC fugitive emissions shall not exceed 0.56 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. VOC content of gas processed shall not exceed 100% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rules 2201 and 1070] Federally Enforceable Through Title V Permit
10. VOC content of gas shall be measured using EPA Methods 25, 25a, or 25b referenced as methane. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall comply in full with all applicable Rule 4409 requirements as shown on the facility wide permit. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Permittee shall maintain daily and monthly records of gas dehydrated and records including those listed in Rule 4408 Section 6.1.2. The permittee shall make such records readily available for District inspection upon request and shall be retained on the premises for a period of not less than five years. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit

13. Permittee shall maintain records of component leak inspections and repairs in accordance with Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit

DRAFT

# ATTACHMENT B

## Previous Title V Operating Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-200-4 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (R-22) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-195-2 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
METHANOL UNLOADING, STORAGE, AND LOADING OPERATION CONSISTING OF A 430 BBL STORAGE VESSEL CONTROLLED WITH A GAS BLANKET SYSTEM, AND AN UNLOADING RACK, LOADING RACK, AND METHANOL INJECTION PUMPS:

## PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Methanol received by the unloading operation shall be stored in the storage vessel until such time it is injected into the gas gathering system, or until such time it is loaded into tank trucks or trailers with a storage capacity of not less than 2,520 gallons. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.27 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. There shall be no leaks in excess of 10,000 ppmv from either fugitive components or the pressure relief valve on the tank trucks when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. The vapor space of the methanol storage vessel shall be vented to the gas gathering system. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. Any gauging or sampling device on the methanol storage vessel shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. The methanol loading and unloading racks shall be designed, installed, maintained, and operated such that there are no leaks or excess organic liquid drainage at disconnections. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Excess organic liquid drainage is defined as organic liquid drainage greater than 10 mL per disconnect. [District Rule 2201] Federally Enforceable Through Title V Permit
9. There shall be no more than 10 disconnects per day from loading and unloading operations combined. [District Rule 2201] Federally Enforceable Through Title V Permit
10. VOC emissions from disconnects shall not exceed 0.17 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Tank trucks or trailers receiving methanol from the loading rack shall be equipped with a pressure relief valve set to at least 35 psig positive pressure, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Tank trucks or trailers receiving methanol from the loading rack shall not contain more than 1,600 gallons of methanol when a loading operation is complete. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The pressure relief valve on the tank trucks or trailers shall not vent during loading operations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The combined volume of methanol loaded into tank trucks or trailers and unloaded into tanks shall not exceed 4,000 gallons in any one day. [District Rule 4624] Federally Enforceable Through Title V Permit
15. The operator shall maintain daily records of the quantity of methanol loaded into tank trucks and/or trailers and unloaded into tanks after each loading and unloading operation is completed. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit
16. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
17. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-194-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** SE14 **TOWNSHIP:** 30S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**
GLYCOL DEHYDRATION SKID MOUNTED UNIT WITH A GLYCOL CONTACTOR, A SEPARATOR COALESCER, SEVERAL GLYCOL HEAT EXCHANGERS, A REBOILER/REGENERATOR EQUIPPED WITH 4.7 MMBTU/HR BURNER, A GLYCOL SURGE TANK, A FLASH SEPARATOR, A LEAN/RICH GLYCOL EXCHANGER, AND VARIOUS PUMPS AND FILTERS, WITH PROCESS VENT CONNECTED TO EXISTING VACUUM GAS GATHERING SYSTEM

# PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Only glycol shall be used as the dehydration medium. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Condensate handling shall be conducted in closed systems resulting in fugitive component emissions only. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC control efficiency shall be no less than 95% by weight. [District Rule 4408] Federally Enforceable Through Title V Permit
6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
7. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC fugitive emissions shall not exceed 0.56 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. VOC content of gas processed shall not exceed 100% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rules 2201 and 1070] Federally Enforceable Through Title V Permit
10. VOC content of gas shall be measured using EPA Methods 25, 25a, or 25b referenced as methane. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall comply in full with all applicable Rule 4409 requirements as shown on the facility wide permit. [District Rule 4409] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Permittee shall maintain daily and monthly records of gas dehydrated and records including those listed in Rule 4408 Section 6.1.2. The permittee shall make such records readily available for District inspection upon request and shall be retained on the premises for a period of not less than five years. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit

13. Permittee shall maintain records of component leak inspections and repairs in accordance with Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-187-5 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (R-41)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. Annual fuel consumption for this natural gas-fired engine shall not exceed 104.6 MMScf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain annual records of fuel consumption, in MMScf, to show compliance with the annual fuel consumption limit of 104.6 MMScf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
7. The permittee shall install and operate a nonresettable elapsed operating time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
8. The permittee shall install and operate a nonresettable fuel flow meter to determine annual fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 0.07 g-NOx/hp-hr, 0.0094 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 0.475 g-CO/hp-hr, or 0.121 g-VOC/hp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last calendar quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

15. Source testing to measure gas combustion NOx, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit

16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. PM10 emission rate shall be reported in grams/bhp-hr. [District Rule 4702] Federally Enforceable Through Title V Permit

18. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, PM10 - EPA Method 19, and VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made readily available for District inspection upon request. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-186-5 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (R-40)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201, 4702, 5.7.1, and 4801] Federally Enforceable Through Title V Permit
4. Annual fuel consumption for this natural gas-fired engine shall not exceed 104.6 MMScf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain annual records of fuel consumption, in MMScf, to show compliance with the annual fuel consumption limit of 104.6 MMScf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
7. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
8. The permittee shall install and operate a nonresettable fuel flow meter to determine annual fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 0.07 g-NOx/hp-hr, 0.0094 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 0.475 g-CO/hp-hr, or 0.121 g-VOC/hp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing to measure gas combustion NOx and CO emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NOx and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-185-5 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (R-39)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201, 4702, 5.7.1, and 4801] Federally Enforceable Through Title V Permit
4. Annual fuel consumption for this natural gas-fired engine shall not exceed 104.6 MMScf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain annual records of fuel consumption, in MMScf, to show compliance with the annual fuel consumption limit of 104.6 MMScf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
7. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
8. The permittee shall install and operate a nonresettable fuel flow meter to determine annual fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 0.07 g-NOx/hp-hr, 0.0094 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 0.475 g-CO/hp-hr, or 0.121 g-VOC/hp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

15. Source testing to measure gas combustion NOx and CO emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit

16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NOx and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit

18. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

INSPECTION WORKSHEET

**EXPIRATION DATE:** 10/31/2021

**LEGAL OWNER OR OPERATOR:** CALIFORNIA RESOURCES ELK HILLS LLC
**MAILING ADDRESS:** 900 OLD RIVER RD
BAKERSFIELD, CA 93311

**LOCATION:** GAS PLANT
SECTION SE-35, T-30S, R-23E
TUPMAN, CA

**PHYSICAL LOCATION:** 15Z

**INSPECT PROGRAM PARTICIPANT:** NO

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (R-38)

# CONDITIONS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201, 4702, 5.7.1, and 4801] Federally Enforceable Through Title V Permit
4. Annual fuel consumption for this natural gas-fired engine shall not exceed 104.6 MMScf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain annual records of fuel consumption, in MMScf, to show compliance with the annual fuel consumption limit of 104.6 MMScf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
7. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
8. The permittee shall install and operate a nonresettable fuel flow meter to determine annual fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 0.07 g-NOx/hp-hr, 0.0094 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 0.475 g-CO/hp-hr, or 0.121 g-VOC/hp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

INSPECTION WORKSHEET

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing to measure gas combustion NOx and CO emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NOx and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-183-5 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (K-147)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201, 4702, 5.7.1, and 4801] Federally Enforceable Through Title V Permit
4. Annual fuel consumption for this natural gas-fired engine shall not exceed 104.6 MMScf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain annual records of fuel consumption, in MMScf, to show compliance with the annual fuel consumption limit of 104.6 MMScf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
7. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
8. The permittee shall install and operate a nonresettable fuel flow meter to determine annual fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 0.07 g-NOx/hp-hr, 0.0094 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 0.475 g-CO/hp-hr, or 0.121 g-VOC/hp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing to measure gas combustion NOx and CO emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NOx and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-182-5 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (K-151)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201, 4702, 5.7.1, and 4801] Federally Enforceable Through Title V Permit
4. Annual fuel consumption for this natural gas-fired engine shall not exceed 104.6 MMScf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain annual records of fuel consumption, in MMScf, to show compliance with the annual fuel consumption limit of 104.6 MMScf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
7. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
8. The permittee shall install and operate a nonresettable fuel flow meter to determine annual fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 0.07 g-NOx/hp-hr, 0.0094 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 0.475 g-CO/hp-hr, or 0.121 g-VOC/hp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing to measure gas combustion NOx and CO emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NOx and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
22. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-181-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-20) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-180-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-19) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-173-4 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
300 HP JOHN DEERE MODEL 6081HF070 DIESEL FIRED EMERGENCY IC ENGINE POWERING FIRE WATER PUMPS AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. The PM10 emissions rate shall not exceed 0.15 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District NSR Rule, District Rule 4102, 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. Emissions from this IC engine shall not exceed any of the following limits: 4.9 g-NOx/bhp-hr, 2.61 g-CO/bhp-hr, or 0.4 g-VOC/bhp-hr. [District NSR Rule, 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
4. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
6. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per year. [District NSR Rule, District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
8. During periods of maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emissions control system supplier (e.g. oil pressure, exhaust gas temperature, etc.). [District Rule 4702] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the number of hours of operation, the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.), the type of fuel used, and records of operational characteristics monitoring. Such records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Approved locations for this equipment: any site within facility S-2234. [District NSR Rule] Federally Enforceable Through Title V Permit
12. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate matter emissions shall not exceed in concentration at the point of discharge 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera County) and Rule 404 (Kern County)] Federally Enforceable Through Title V Permit
15. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District NSR Rule, District Rule 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
16. The operator shall maintain copies of all fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
17. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD: District Rule 4201 and Kern County 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
18. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: Kern County Rule 404. A permit shield is granted from this requirement. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. Upon implementation of this ATC, PTO S-2234-39 shall be surrendered to the District and the associated equipment permanently removed from service. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [0 CFR 63 Subpart ZZZZ ]] Federally Enforceable Through Title V Permit
26. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

27. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-172-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 3 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
GLYCOL DEHYDRATION OPERATION INCLUDING 1.5 MMBTU/HR BURNER, A GLYCOL SURGE TANK, FLASH VESSEL AND GLYCOL REBOILER VENT, A LEAN/RICH GLYCOL EXCHANGER, AND VARIOUS PUMPS AND FILTERS WITH PROCESS VENT CONNECTED TO VACUUM GAS GATHERING SYSTEM

## PERMIT UNIT REQUIREMENTS

1. Glycol reboiler heater shall be fired on natural gas containing no more than 0.75 gr S/100 scf and no more than 5% by weight hydrocarbons heavier that butane. [District Rule 2020] Federally Enforceable Through Title V Permit
2. Only glycol shall be used as the dehydration medium. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Flash tank and dehydrator vent shall be vented to gas gathering system. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
4. Condensate handling shall be conducted in closed systems resulting in fugitive component emissions only. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The glycol dehydration system shall not be operated unless all vapors are directed to the vapor recovery system, a fuel gas system or a sales gas system, or a system in which VOC emissions are combusted by a flare, incinerator, reboiler, or thermal oxidizer. [District Rule 4408, 5.1] Federally Enforceable Through Title V Permit
6. The condensed hydrocarbon liquid stream from the glycol dehydration vent shall be stored and handled in a manner that will not cause or allow evaporation of VOC to the atmosphere. [District Rule 4408, 5.2] Federally Enforceable Through Title V Permit
7. A leak is defined as the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs or a reading as methane in excess of 10,000 ppm above background when measured in accordance with EPA Method 21. [District Rule 4408, 3.8.1] Federally Enforceable Through Title V Permit
8. All control systems shall be maintained in a leak-free condition as determined by EPA Method 21. [District Rule 4408, 5.3] Federally Enforceable Through Title V Permit
9. VOC control efficiency shall be no less than 95% by weight. [District Rule 4408, 5.1] Federally Enforceable Through Title V Permit
10. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.6 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
11. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
12. The operator shall maintain monthly records of the amount of gas dehydrated (MMSCF). [District Rule 4408, 6.1.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The operator of any glycol dehydration system shall maintain the following records: facility name and APCD permit number; description of any installed VOC control system; flow diagram of dehydrator and any VOC controls; and maintenance records of the VOC control system. [District Rule 4408, 6.1.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-170-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NE-35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
99 BHP CUMMINS MODEL 4BTA 3.9-G5 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING POTABLE WATER PUMPS

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (except for a flapper type rain cap), roof overhang, or any other obstruction. [District Rule 4102]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. Emissions from this IC engine shall not exceed any of the following limits: 4.71 g-NOx/bhp-hr, 0.37 g-CO/bhp-hr, or 0.36 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. The PM10 emissions rate shall not exceed 0.15 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201, 4102, and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201 and 4702, 4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
9. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
10. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
11. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
13. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rules 2520, 9.4.2 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
14. The permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
15. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
16. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
17. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [0 CFR 63 Subpart ZZZZ ]] Federally Enforceable Through Title V Permit
20. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-167-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 31 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-124) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-166-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 31 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-123) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-165-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 12 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-122) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-164-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 36 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-121) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-163-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-120) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-162-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 34 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-119) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-161-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 10 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-118) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-160-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 09 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-117) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-159-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 04 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-116) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-158-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-115) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-157-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 06 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-114) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-154-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 03 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-113) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-153-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 03 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-112) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-152-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 03 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-111) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-151-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 03 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-110) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-150-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 03 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-109) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-147-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 17 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-108] AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-145-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 25 **TOWNSHIP:** 30S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-106) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-144-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-105) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-143-5 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-104) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-142-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 26 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-103) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-141-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 03 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-95) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-140-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 28 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (R-24) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-139-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 28 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (R-23) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-137-9 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 27 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-35) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 4702] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
7. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
8. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
12. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
15. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
16. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
18. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702] Federally Enforceable Through Title V Permit
19. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months unless the unit is in dormant status. [District Rule 2201 and 4702] Federally Enforceable Through Title V Permit
20. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
24. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit
26. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

27. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

28. Alternate monitoring shall not be required while unit is in dormant status, but shall resume upon recommencing operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

29. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

30. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

31. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

33. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

34. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

35. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-136-10 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-34) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
12. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
18. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
19. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit
20. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
22. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
23. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
27. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit
29. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

32. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

35. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

36. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

37. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

38. All records shall be maintained, retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-135-10 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-33) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
11. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
18. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit
19. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
21. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
23. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
26. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
27. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit
28. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

30. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

31. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

32. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

33. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

34. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

35. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

36. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

37. All records shall be maintained, retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-134-9 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR K-152) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
12. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
15. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
18. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
19. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit
20. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
22. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
23. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
27. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

30. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

32. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

33. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

34. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

35. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

36. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

44. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

45. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

46. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

47. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

48. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-132-10 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 26 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (K-154) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
12. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
18. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
19. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit
20. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
22. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
23. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
27. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit
29. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

32. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

46. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

47. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

48. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-131-10 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 26 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR K-153) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
12. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
18. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
19. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit
20. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
22. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
23. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
27. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit
29. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

32. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

33. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

34. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

35. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

36. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

44. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

45. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

46. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

47. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

48. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-130-8 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 28 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (K-150) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
9. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

15. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit

16. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit

20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

21. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

29. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

30. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

31. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

32. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

33. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

34. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

35. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

36. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-129-9 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (K-149) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
9. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr [District Rule 2201] Federally Enforceable Through Title V Permit
11. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit

15. The permittee shall install and operate a nonresettable elapsed operating time meter. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit

16. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit

20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

21. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.1 and 5.6.9] Federally Enforceable Through Title V Permit

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

29. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

30. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

31. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

32. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

33. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

34. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

35. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

36. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-126-9 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-21) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. (Adjust as necessary) [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
12. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.011 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
15. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The fuel consumption limit for this engine shall not exceed 88.184 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
18. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
19. If the engine is fired on non-PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or double GC. [District Rule 2201] Federally Enforceable Through Title V Permit
20. If the engine is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
21. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. The elapsed operating time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702] Federally Enforceable Through Title V Permit
22. Source testing to measure the stack NOx, CO, and VOC emissions from this unit shall be conducted not less than once every twelve (12) months unless the unit is in dormant status. [District Rule 2201 and 4702] Federally Enforceable Through Title V Permit
23. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100, ASTM D3246 or double GC for H2S and mercaptans, and EPA Method 21 for fugitive components. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
27. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

30. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

31. Alternate monitoring shall not be required while unit is in dormant status, but shall resume upon recommencing operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

32. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

33. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

34. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

35. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

36. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070] Federally Enforceable Through Title V Permit

37. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

38. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas or gallons of liquid) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. All records shall be maintained, retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-122-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
GLYCOL DEHYDRATION SKID MOUNTED UNIT WITH A GLYCOL CONTACTOR, SEPARATOR COALESCER, SEVERAL GLYCOL HEAT EXCHANGERS, REBOILER/REGENERATOR EQUIPPED WITH 1.5 MMBTU/HR BURNER, GLYCOL SURGE TANK, FLASH SEPARATOR, LEAN/RICH GLYCOL EXCHANGER, VARIOUS PUMPS AND FILTERS, WITH PROCESS VENT CONNECTED TO EXISTING VACUUM GAS GATHERING SYSTEM

# PERMIT UNIT REQUIREMENTS

1. Glycol reboiler heater shall be fired on natural gas containing no more than 0.75 gr S/100 scf and no more than 5% by weight hydrocarbons heavier that butane. [District Rule 2020] Federally Enforceable Through Title V Permit
2. Only glycol shall be used as the dehydration medium. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Flash tank and dehydrator vent shall be vented to gas gathering system. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
4. Condensate handling shall be conducted in closed systems resulting in fugitive component emissions only. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The glycol dehydration system shall not be operated unless all vapors are directed to the vapor recovery system, a fuel gas system or a sales gas system, or a system in which VOC emissions are combusted by a flare, incinerator, reboiler, or thermal oxidizer. [District Rule 4408, 5.1] Federally Enforceable Through Title V Permit
6. The condensed hydrocarbon liquid stream from the glycol dehydration vent shall be stored and handled in a manner that will not cause or allow evaporation of VOC to the atmosphere. [District Rule 4408, 5.2] Federally Enforceable Through Title V Permit
7. A leak is defined as the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs or a reading as methane in excess of 10,000 ppm above background when measured in accordance with EPA Method 21. [District Rule 4408, 3.8.1] Federally Enforceable Through Title V Permit
8. All control systems shall be maintained in a leak-free condition as determined by EPA Method 21. [District Rule 4408, 5.3] Federally Enforceable Through Title V Permit
9. VOC control efficiency shall be no less than 95% by weight. [District Rule 4408, 5.1] Federally Enforceable Through Title V Permit
10. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.5 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
11. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
12. The operator shall maintain monthly records of the amount of gas dehydrated (MMSCF). [District Rule 4408, 6.1.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The operator of any glycol dehydration system shall maintain the following records: facility name and APCD permit number; description of any installed VOC control system; flow diagram of dehydrator and any VOC controls; and maintenance records of the VOC control system. [District Rule 4408, 6.1.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-121-3 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
90,000 GALLON PRESSURIZED NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12953

## PERMIT UNIT REQUIREMENTS

1. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
2. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in District Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in District Rule 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-120-3 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12950

## PERMIT UNIT REQUIREMENTS

1. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
2. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in District Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in District Rule 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-119-3 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
96,604 GALLON NATURAL GASOLINE AND BUTANE STORAGE BULLET TANK

# PERMIT UNIT REQUIREMENTS

1. The tank shall not vent directly to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
3. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-118-3 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
96,604 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK

# PERMIT UNIT REQUIREMENTS

1. The tank shall not vent directly to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
3. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in District Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in District Rule 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-117-3 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12966

## PERMIT UNIT REQUIREMENTS

1. The tank shall not vent directly to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
3. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in DIstrict Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in District Rule 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-116-3 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12956

## PERMIT UNIT REQUIREMENTS

1. The tank shall not vent directly to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
3. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in District Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in District Rule 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-115-3 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12955

## PERMIT UNIT REQUIREMENTS

1. The storage tank shall not vent directly to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
3. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-114-3 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12954

## PERMIT UNIT REQUIREMENTS

1. The storage tank shall not vent directly to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall be capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere. [District Rule 4623, 3.24 and 4.1.1] Federally Enforceable Through Title V Permit
3. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device shall be equipped with a gas-tight (as defined in District Rule 4623) cover which shall be closed at all times except during gauging or sampling. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight (as defined in District Rule 4623) condition. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
7. A facility operator, upon detection of a leaking component greater than 7,500 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. Leaks less than 10,000 ppmv from components which have been tagged by the facility operator for repair within 56 hours or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c , Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components shall not exceed 0.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection; 3) Date and emission level of recheck after leak is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-111-6 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-93), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS AND 1 OFF SKID GAS COOLER

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-110-6 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-92), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS AND 1 OFF SKID GAS COOLER

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-109-6 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-91), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS AND 1 OFF SKID GAS COOLER

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-108-6 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-90), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS AND 1 OFF SKID GAS COOLER

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-107-6 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW36 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-89), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS, 1 OFF SKID GAS COOLER AND FACILITY INLET GAS/LIQUID SEPARATOR

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-104-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NE35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,445 BHP CATERPILLAR MODEL 3512 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING A 1000KW ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. Compliance with this requirement is assured by only using diesel fuel with sulfur content not exceeding 0.05% by weight. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
3. The diesel engine shall be operated with an initial injection timing setting of 16 degrees BTDC (Before Top Dead Center) or less. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Engine shall be equipped with a turbocharger. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Engine shall be equipped with an aftercooler or intercooler. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The engine shall not have a rain cap, that impedes vertical exhaust flow, installed on the exhaust pipe. [District Rule 4102]
8. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rule 2520, 9.3.2 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
10. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions shall not exceed any of the following at full rated load: NOx, 9.39 g/bhp-hr; CO, 0.93 g/bhp-hr; VOC, 0.28 g/bhp-hr; PM10, 0.142 g/bhp-hr; or SOx, 0.082 g/bhp-hr. [District Rule 2201 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201 and 4702, 4.2, 17 CCR 93115 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit

14. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit

15. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit

16. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit

17. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rules 2520, 9.4.2 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit

18. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

19. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

20. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

21. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

22. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

23. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

24. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-101-5 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
300 BHP SIEMENS ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-85) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE S-2234

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. Maximum VOC fugitive emissions shall not exceed 4.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The operator shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using California Implementation Guidelines for Estimating Mass Emissions of fugitive Hydrocarbon Leaks at Petroleum Facilities, CAPCOA/CARB, February 1999 "revised screening" emissions factors. [District NSR Rule] Federally Enforceable Through Title V Permit
7. VOC content of gas processed shall not exceed 50% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
8. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. The operator shall maintain with the permit accurate fugitive component counts and resulting emissions calculated according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201]
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-100-5 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
300 BHP SIEMENS ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-84) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE S-2234

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. Maximum VOC fugitive emissions shall not exceed 4.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The operator shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using California Implementation Guidelines for Estimating Mass Emissions of fugitive Hydrocarbon Leaks at Petroleum Facilities, CAPCOA/CARB, February 1999 "revised screening" emissions factors. [District NSR Rule] Federally Enforceable Through Title V Permit
7. VOC content of gas processed shall not exceed 50% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
8. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. The operator shall maintain with the permit accurate fugitive component counts and resulting emissions calculated according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201]
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-99-5 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,250 HP GENERAL ELECTRIC ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-83) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-98-5 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,250 HP GENERAL ELECTRIC ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-82) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service and is located within the boundaries of the plant site at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions rate shall be, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas, light liquid, and light crude oil service shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate records of fugitive emissions and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-97-4 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,250 HP GENERAL ELECTRIC ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-81) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. If compressor is operated in VOC service or wet gas service at a natural gas processing plant as defined in 40 CFR 60.631, then 40 CFR Part 60 Subpart KKK requirements shall be fully satisfied including, but not limited to, section 60.632 performance standards, 60.635 recordkeeping requirements, section 60.636 reporting requirements and Subpart A section 60.7 notification and recordkeeping. [District Rule 4001] Federally Enforceable Through Title V Permit
2. This compressor is permitted to operate at various unspecified locations within the Elk Hills Gas Plant Stationary Source. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
5. Maximum VOC fugitive emissions shall not exceed 1.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The operator shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using API Publication 4322 Table E-3 and U.S. EPA publication 450/3-83-007, Table 4-1. [District NSR Rule] Federally Enforceable Through Title V Permit
7. VOC content of gas processed shall not exceed 28% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
8. The operator shall maintain a log noting compressor location, date the compressor was relocated, whether the location is at the gas plant and whether the compressor is located upstream of the gas plant (in wet gas service). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-86-13 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
490 BHP CATERPILLAR MODEL G398 RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-69 UNX# 54318)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
10. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; SOx (as SO2): 0.6 lb/day; PM10: 10.5 lb/day; CO: 11.6 g/hp-hr and 1,592 ppmv @ 15% O2; or VOC: 58 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
11. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
12. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
13. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

30. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

31. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

32. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

33. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

34. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

35. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-85-14 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
490 BHP CATERPILLAR MODEL G398 RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-66 UNX# 54299)

## PERMIT UNIT REQUIREMENTS

1. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; SOx (as SO2): 0.6 lb/day; PM10: 10.5 lb/day; CO: 11.6 g/hp-hr and 1,592 ppmv @ 15% O2; or VOC: 58 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
11. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
12. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
13. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
29. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
30. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
31. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
33. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
34. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
35. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-84-14 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
490 BHP CATERPILLAR MODEL G398 RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-67 UNX# 54302)

## PERMIT UNIT REQUIREMENTS

1. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
10. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; SOx (as SO2): 0.6 lb/day; PM10: 10.5 lb/day; CO: 11.6 g/hp-hr and 1,592 ppmv @ 15% O2; or VOC: 58 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
11. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
12. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
13. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District NSR Rule and District Rule 4702, 6.3.2] Federally Enforceable Through Title V Permit

17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

30. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

31. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

32. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

33. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

34. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

35. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-83-15 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,500 BHP WAUKESHA MODEL L7042 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-STRATIFIED COMBUSTION SYSTEM POWERING A GAS COMPRESSOR (K-71 UNX# 54497)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.26 gr/hp-hr, 4.17 lb/hr and 104 ppmv @ 15% O2 (equivalent to 93% NOx reduction), SOx (as SO2): 0.02 lb/hr, PM10: 0.05 lb/hr, CO: 8.00 lb/hr and 327 ppmv @ 15% O2, or VOC: 6.00 lb/hr and 429 ppmv @ 15% O2. [District Rules 2201, 4201, and 4702; Kern County Rule 407] Federally Enforceable Through Title V Permit
5. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
6. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702] Federally Enforceable Through Title V Permit
11. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

13. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
28. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-82-16 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,500 BHP WAUKESHA MODEL L7042 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-STRATIFIED COMBUSTION SYSTEM POWERING A GAS COMPRESSOR (K-70 UNX# 54508)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.26 gr/hp-hr, 4.17 lb/hr and 104 ppmv @ 15% O2 (equivalent to 93% NOx reduction), SOx (as SO2): 0.02 lb/hr, PM10: 0.05 lb/hr, CO: 8.00 lb/hr and 327 ppmv @ 15% O2, or VOC: 6.00 lb/hr and 429 ppmv @ 15% O2. [District Rules 2201, 4201, and 4702; Kern County Rule 407] Federally Enforceable Through Title V Permit
5. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
6. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702] Federally Enforceable Through Title V Permit
11. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

13. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
28. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-81-12 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042GL LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-STRATIFIED COMBUSTION SYSTEM POWERING A GAS COMPRESSOR (K-60)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.26 gr/hp-hr, 2.78 lb/hr and 104 ppmv @ 15% O2 (equivalent to 93% NOx reduction), SOx (as SO2): 0.01 lb/hr, PM10: 0.09 lb/hr, CO: 9.92 lb/hr and 608 ppmv @ 15% O2, or VOC: 7.00 lb/hr and 750 ppmv @ 15% O2. [District Rules 2201, 4201, and 4702; Kern County Rule 407] Federally Enforceable Through Title V Permit
5. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
6. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702] Federally Enforceable Through Title V Permit
11. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

13. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
28. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-80-12 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042GL LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-STRATIFIED COMBUSTION SYSTEM POWERING A GAS COMPRESSOR (K-59 UNX# 53881)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.26 gr/hp-hr, 2.78 lb/hr and 104 ppmv @ 15% O2 (equivalent to 93% NOx reduction); SOx (as SO2): 0.01 lb/hr; PM10: 0.09 lb/hr; CO: 9.92 lb/hr and 608 ppmv @ 15% O2; or VOC: 7.00 lb/hr and 750 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
5. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
6. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
11. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

13. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

20. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
24. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
25. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-79-18 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042 RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-57 UNX# 18017)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 240 ppmv @ 15% O2. [District Rules 2201, 4201, and 4702; Kern County Rule 407] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
37. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

43. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-78-18 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042 RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-58 UNX# 18033)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 240 ppmv @ 15% O2. [District Rules 2201, 4201, and 4702; Kern County Rule 407] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-77-14 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-47 UNX# 13716)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
12. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 5.42 lb/hr, 1.23 gr/hp-hr and 101 ppmv @ 15% O2 (equivalent to 93% NOx reduction); PM10: 0.49 lb/hr; CO: 22.05 lb/hr and 676 ppmv @ 15% O2; or VOC: 13.23 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

30. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

31. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

32. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

33. Source testing to measure the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

34. The permittee shall determine the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-76-13 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-46 UNX# 13715)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
6. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 5.42 lb/hr, 1.23 gr/hp-hr and 101 ppmv @ 15% O2 (equivalent to 93% NOx reduction); PM10: 0.49 lb/hr; CO: 22.05 lb/hr and 676 ppmv @ 15% O2; or VOC: 13.23 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
26. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
27. Source testing to measure the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
28. The permittee shall determine the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
29. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-75-15 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-45 UNX# 13706)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
12. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 5.42 lb/hr, 1.23 gr/hp-hr and 101 ppmv @ 15% O2 (equivalent to 93% NOx reduction); PM10: 0.49 lb/hr; CO: 22.05 lb/hr and 676 ppmv @ 15% O2; or VOC: 13.23 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

32. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

33. Source testing to measure the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

34. The permittee shall determine the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-74-19 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-50 UNX# 13401)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-73-19 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-51 UNX# 13793)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-72-19 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-35 UNX# 54626)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-71-22 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-34 UNX# 13417)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
13. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

30. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

32. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

33. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

34. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

35. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

36. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

37. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

47. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

48. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

49. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

50. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-70-22 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-33 UNX# 16453)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
13. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

30. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

31. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

32. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

33. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

34. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

35. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

36. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

40. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

41. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

42. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

43. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

44. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

49. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

50. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-69-19 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-32 UNX# 18028)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-68-19 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-31 UNX# 11553)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-67-19 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-30 UNX# 13426)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2 (equivalent to 96% NOx reduction); PM10: 0.24 lb/hr; CO: 8.82 lb/hr and 541 ppmv @ 15% O2; or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District NSR Rule and District Rule 4702, 5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
26. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
27. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
30. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
31. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. NOx emissions rate shall not exceed 8.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
33. Source testing to measure the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GSI) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
34. The permittee shall determine the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GSI) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-66-17 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
650 BHP WAUKESHA MODEL L7042-GU RICH-BURN NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-28 UNX# 12850)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; PM10: 13.9 lb/day; CO: 2.1 g/hp-hr and 289 ppmv; or VOC: 67 ppmv. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
13. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

30. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

31. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

32. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

33. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

34. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

35. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

36. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. NOx emissions rate shall not exceed 8.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

39. Source testing to measure the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GU) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

40. The permittee shall determine the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GU) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

41. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

47. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

48. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

49. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

50. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

51. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-65-17 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
650 BHP WAUKESHA MODEL L7042-GU RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-27 UNX #12705)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; PM10: 13.9 lb/day; CO: 2.1 g/hp-hr and 289 ppmv; or VOC: 67 ppmv. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
13. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
29. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
30. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
31. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
33. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
34. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
35. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
37. NOx emissions rate shall not exceed 8.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
38. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit
39. Source testing to measure the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GU) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

40. The permittee shall determine the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GU) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

41. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

47. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

48. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

49. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

50. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

51. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

**PERMIT UNIT:** S-2234-64-17 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
650 BHP WAUKESHA MODEL L7042-GU RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-26 UNX# 11554)

# PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; PM10: 13.9 lb/day; CO: 2.1 g/hp-hr and 289 ppmv; or VOC: 67 ppmv. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
13. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

30. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

31. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

32. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

33. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

34. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

35. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

36. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. NOx emissions rate shall not exceed 8.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

39. Source testing to measure the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GU) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

40. The permittee shall determine the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GU) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit

41. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

47. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

48. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

49. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

50. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

51. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-63-19 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-48 UNX# 13435)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-62-13 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-44 UNX# 13701)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
6. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 5.42 lb/hr, 1.23 gr/hp-hr and 101 ppmv @ 15% O2 (equivalent to 90% NOx reduction); PM10: 0.49 lb/hr; CO: 22.05 lb/hr and 676 ppmv @ 15% O2; or VOC: 13.23 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
26. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
27. Source testing to measure the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
28. The permittee shall determine the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
29. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-61-19 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042GSI RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-52 UNX# 15676)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2 (equivalent to 96% NOx reduction); PM10: 0.24 lb/hr; CO: 8.82 lb/hr and 541 ppmv @ 15% O2; or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
26. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
27. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
30. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
31. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. NOx emissions rate shall not exceed 8.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
33. Source testing to measure the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GSI) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
34. The permittee shall determine the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GSI) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-60-15 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
650 BHP WAUKESHA MODEL L7042-GU RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-54 UNX# 12877)

# PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; PM10: 13.9 lb/day; CO: 2.1 g/hp-hr and 289 ppmv @ 15% O2; or VOC: 67 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
13. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

30. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

31. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

32. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

33. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

34. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

35. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

36. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

40. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

47. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

48. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-59-20 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSI RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-29 UNX# 13207)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11ppmv @ 15% O2, SOx (as SO2): 0.34 lb/hr, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-58-21 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-49 UNX# 51286)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-57-19 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP NATURAL GAS FIRED WAUKESHA MODEL L7042 RICH BURN I.C. ENGINE WITH TURBOCHARGER, ENLARGED NOZZLE RING, AIR/FUEL RATIO CONTROL UNIT, AND A NONSELECTIVE THREE WAY CATALYTIC REDUCTION (NSCR) SYSTEM (K-53 UNX #13444)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2; PM10: 0.24 lb/hr; CO: 8.82 lb/hr and 541 ppmv @ 15% O2; or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

13. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit

14. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

16. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
26. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
27. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
30. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
31. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. NOx emissions rate shall not exceed 8.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
33. Source testing to measure the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GSI) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
34. The permittee shall determine the NOx emissions from at least one representative engine of this type (Waukesha, model L7042GSI) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
35. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-53-10 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NE35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ONE 24.5 MW NATURAL GAS-FIRED GAS TURBINE COGENERATION SYSTEM, INCLUDING 250 MMBTU/HR GENERAL ELECTRIC MODEL LM-2500 GAS TURBINE, 103 MMBTU/HR DUCT BURNER ASSEMBLY, AND 150,000 LB/HR HEAT RECOVERY STEAM GENERATOR

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. All equipment shall be maintained and operated according to manufacturers' recommendations. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Circular cross section exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and equipped with flow straighteners, if necessary, to minimize turbulence. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Gas turbine engine and duct burner assembly shall be equipped with continuously recording fuel gas flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Gas turbine engine shall be equipped with continuously recording NOx and O2 monitors for engine exhaust gas stream after duct burners and catalyst beds. [District Rules 2201 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
11. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of one hour and one hour, respectively, per occurrence. [District Rules 2201 and 4703, 5.3.1] Federally Enforceable Through Title V Permit
12. Gas turbine engine combustor steam injection system shall be equipped with continuously recording steam-to-fuel injection rate monitoring system accurate to within +/- 5%. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Except during periods of gas turbine engine startup/shutdown, gas turbine engine steam injection rate shall be maintained at steam-to-fuel ratio range documented to result in compliance with emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All exhaust from gas turbine engine and duct burners shall flow through both SCR and oxidation catalyst beds. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Gas temperatures at SCR and oxidation catalyst inlets shall be monitored by operational temperature indicators. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Except during periods of gas turbine engine startup/shutdown, inlet gas temperatures of SCR and oxidation catalyst beds shall be maintained within ranges recommended by the catalyst manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Installed SCR and oxidation catalyst beds shall provide space for additional catalyst if source operation cannot achieve emission sampling limits of NOx, VOC, and CO. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Except during periods of gas turbine engine startup/shutdown, gas turbine engine shall be shut down if steam injection or SCR system is inoperative. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Ammonia injection rate shall be controlled to maintain ammonia "breakthrough" to less than 20 ppmv (3-hr rolling average) from gas turbine exhaust. [District Rule 4102]
21. Excess emissions shall be defined as any operating hour in which 4-hour rolling average NOx concentration exceeds applicable emissions limit and a period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx or O2 (or both). [40 CFR 60.334(J)(1)(iii)] Federally Enforceable Through Title V Permit
22. Transitional Operation Period shall be defined as any of following periods: bypass transition period, primary re-ignition period, reduced load period, start-up or shutdown. [District Rule 4703, 3.33] Federally Enforceable Through Title V Permit
23. Bypass Transition Period shall be defined as the duration of time that a gas turbine's operation transitions between the heat recovery steam generator and bypass exhaust stacks, provided all of the following conditions are met: a) The selective catalytic reduction catalyst is not within the required temperature range or the required ammonia saturation level has not yet been achieved; b) The duration of a bypass transition period shall not exceed two hours; c) NOx emissions shall not exceed 15 ppmvd, corrected to 15% O2, averaged over two (2) hours; and d) The applicable CO compliance limit shall not be exceeded. [District Rule 4703, 3.2] Federally Enforceable Through Title V Permit
24. Primary Re-ignition Period shall be defined as the duration of time during which a gas turbine is operated at less than rated capacity in order to reset the DLN combustion system following a primary re-ignition, provided all of the following conditions are met: a) The duration of a primary re-ignition period shall not exceed one hour; b) NOx emissions shall not exceed 15 ppmvd, corrected at 15% O2, averaged over one (1) hour; and c) CO emissions shall not exceed 25 ppmvd, corrected at 15% O2. [District Rule 4703, 3.20] Federally Enforceable Through Title V Permit
25. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate, not to exceed one hour. [District Rule 4703, 3.23] Federally Enforceable Through Title V Permit
26. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during each transitional operation period. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
27. No more than 6.00 MMscf/day of natural gas shall be consumed by gas turbine and no more than 2.47 MMscf/day of natural gas shall be consumed by duct burners. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Maximum emissions from turbines S-2234-52 & -53 and standby boilers/heaters S-2234-1 & -3 shall not exceed the following daily emission limitations (DEL): PM10: 50.6 lb/day, NOx (as NO2): 245.7 lb/day, VOC: 51.4 lb/day, and CO: 544.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. During days of gas turbine startup/shutdown, daily NO2 and CO emissions shall be calculated by natural gas consumption rates, CEM results, and emission factors for standby boilers/heaters. [District Rule 2201] Federally Enforceable Through Title V Permit

30. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbines for normal operation and startup/shutdown periods, and in LTS-1 & LTS-2 gas plant standby boilers/heaters. [District Rule 2201] Federally Enforceable Through Title V Permit

31. Permittee shall maintain daily records of NO2 and CO emission calculations during days of gas turbine startup/shutdown, and such records shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

32. Permittee shall maintain accurate records of CEM printouts, and daily natural gas consumption in gas turbine & duct burners, and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Permittee shall report the following emission exceedances to the District: emission rates of NOx and CO on a 3-hr rolling average, NSPS NOx emission rate on one hour average, and DEL of NOx & CO during days of gas turbine engine startup/shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Gas turbine lube oil system atmospheric vent shall be equipped with aerosol/smoke control provisions. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Emission rates from gas turbine lube oil vent shall not exceed the following: PM10: 0.02 lb/hr and VOC: 0.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

36. PM10 and VOC emissions from lube oil vent shall be measured by source testing within 60 days upon detection of visible emissions in excess of 5% opacity or Ringelmann 1/4 from gas turbine lube oil vent. [District Rule 2201] Federally Enforceable Through Title V Permit

37. Except during periods of startup/shutdown, emission rates (3-hr rolling average) from gas turbine combustion shall not exceed: PM10: 0.004 lb/MMBtu, NOx as NO2: 0.013 lb/MMBtu & 3.75 ppmvd @ 15% O2, VOC: 0.004 lb/MMBtu, and CO: 0.043 lb/MMBtu. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. Except during periods of startup/shutdown, emission rates (3-hr rolling average) from duct burner combustion shall not exceed: PM10: 0.001 lb/MMBtu, NOx as NO2: 0.008 lb/MMBtu, VOC: 0.001 lb/MMBtu, and CO: 0.007 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

39. If NOx CEM data & source testing results show compliance at lower NOx emission than 3.75 ppmvd @ 15% O2, District may adjust permitted NOx emission rate 12 months after complete implementation of this approval according to CEM data & testing results. [District Rule 2201] Federally Enforceable Through Title V Permit

40. NOx, VOC, CO, and ammonia emissions shall be measured by source testing annually 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

41. Permittee shall maintain steam to fuel ratio during annual compliance testing to within +/- 5% of the average daily values recorded during the 60 day period prior to annual testing. [District Rule 2201] Federally Enforceable Through Title V Permit

42. Permittee shall maintain exhaust gas temperatures at SCR and oxidation catalyst inlets to within +/- 5% of the average daily values recorded during the 60 day period prior to annual testing. [District Rule 2201] Federally Enforceable Through Title V Permit

43. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

44. The results of each source test shall be submitted to the District within 60 days of field testing. [District Rule 1081] Federally Enforceable Through Title V Permit

45. LTS-1 and LTS-2 gas plants (S-2234-3 & '1) standby boilers/heaters shall only be used when one or both gas turbines (S-2234-52 & '53) are inoperative. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

46. Gas turbine engine shall be equipped with G.E. Steward Stevenson turbine combustor steam injection system, Mitsubishi/Applied Thermal Systems selective catalytic reduction (SCR) with ammonia injection, and Grace oxidation catalyst system. [District Rule 2201] Federally Enforceable Through Title V Permit

47. Unit shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.0026% by weight. [40 CFR 60.333(a) & (b); 60.332(a)] Federally Enforceable Through Title V Permit

48. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201] Federally Enforceable Through Title V Permit

49. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit

50. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit

51. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the turbine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2, 40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

52. If the turbine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

53. The HHV and LHV of the fuel shall be determined using ASTM D3588-91, ASTM 1826-88, OR ASTM 1945-81. [40 CFR 60.332(a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

54. Performance testing shall be conducted annually to measure NOx and CO emission concentrations using the following test methods: EPA Methods 7E or 20 for NOx emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. The 9-run tests shall be performed at highest physically achievable load of the gas turbine. [40 CFR 60.335(a), (b)(7) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Federally Enforceable Through Title V Permit

55. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and date recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)(2) and District Rule 1081, 6.4] Federally Enforceable Through Title V Permit

56. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit

57. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [40 CFR 60.335(b) and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit

58. The NOx and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2 and 3, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)(1) and, District Rule 1080, 6.3, 6.5, 6.6, & 7.2] Federally Enforceable Through Title V Permit

59. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

60. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEMS that have been installed pursuant to District Rule 1080, and emission measurements. [District Rules 1080, 7.3, and 4703, 6.2.8, and 40 CFR 60.7 (b)] Federally Enforceable Through Title V Permit

61. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

62. The operator of a stationary gas turbine system shall maintain records of the date, time and duration of each bypass transition period and each primary re-ignition period. [District Rule 4703, 6.2.11] Federally Enforceable Through Title V Permit

63. The operator of a stationary gas turbine system shall provide source test information annually regarding the exhaust gas NOx and CO concentrations and the control efficiency of the emission control device. [District Rule 4703, 6.3.1] Federally Enforceable Through Title V Permit

64. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(a),(b),(c) and District Rule 4703, 5.0] Federally Enforceable Through Title V Permit

65. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

66. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: 40 CFR 60.333 (a) and (b); 60.334(a),(b), and (c)(1); SJVUAPCD Rule 4703, Section 6.2.2 and 1080, 7.3. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

67. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4201, 1081 and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332(c) and (d); 60.334(b) and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

68. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

69. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: 40 CFR 60.332(a), (b); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

70. Operator shall install, operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation, the exhaust gas NOx and O2 concentrations. [40 CFR 60.334(a),(b)] Federally Enforceable Through Title V Permit

71. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit

72. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit

73. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. Operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

74. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; C. applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; D. a negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit

75. NOx and carbon monoxide daily emissions shall be measured by use of CEM data, fuel rate data, and daily hours of operation data. A written record of the required compliance demonstrations shall be maintained and made available for District inspection for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-52-13 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NE35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
ONE 24.5 MW NATURAL GAS-FIRED GAS TURBINE COGENERATION SYSTEM, INCLUDING 250 MMBTU/HR GENERAL ELECTRIC MODEL LM-2500 GAS TURBINE, 103 MMBTU/HR DUCT BURNER ASSEMBLY, 150,000 LB/HR HEAT RECOVERY STEAM GENERATOR, AND 6 MW STEAM TURBINE SERVING S-2234-52 AND S-2234-53

## PERMIT UNIT REQUIREMENTS

1. This unit may be designated as a dormant emissions unit or an active emissions unit. The permittee shall notify the District's Compliance Division by US mail, email or Fax upon redesignating the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. While dormant, normal monitoring and recordkeeping shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
8. All equipment shall be maintained and operated according to manufacturers' recommendations. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Circular cross section exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and equipped with flow straighteners, if necessary, to minimize turbulence. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Gas turbine engine and duct burner assembly shall be equipped with continuously recording fuel gas flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Gas turbine engine shall be equipped with continuously recording NOx and O2 monitors for engine exhaust gas stream after duct burners and catalyst beds. [District Rules 2201 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
12. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of one hour and one hour, respectively, per occurrence. [District Rules 2201 and 4703, 5.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Gas turbine engine combustor steam injection system shall be equipped with continuously recording steam-to-fuel injection rate monitoring system accurate to within +/- 5%. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Except during periods of gas turbine engine startup/shutdown, gas turbine engine steam injection rate shall be maintained at steam-to-fuel ratio range documented to result in compliance with emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

15. All exhaust from gas turbine engine and duct burners shall flow through both SCR and oxidation catalyst beds. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Gas temperatures at SCR and oxidation catalyst inlets shall be monitored by operational temperature indicators. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Except during periods of gas turbine engine startup/shutdown, inlet gas temperatures of SCR and oxidation catalyst beds shall be maintained within ranges recommended by the catalyst manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Installed SCR and oxidation catalyst beds shall provide space for additional catalyst if source operation cannot achieve emission sampling limits of NOx, VOC, and CO. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Except during periods of gas turbine engine startup/shutdown, gas turbine engine shall be shut down if steam injection or SCR system is inoperative. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Ammonia injection rate shall be controlled to maintain ammonia "breakthrough" to less than 20 ppmv (3-hr rolling average) from gas turbine exhaust. [District Rule 4102]

22. Excess emissions shall be defined as any operating hour in which 4-hour rolling average NOx concentration exceeds applicable emissions limit and a period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx or O2 (or both). [40 CFR 60.334(J)(1)(iii)] Federally Enforceable Through Title V Permit

23. Transitional Operation Period shall be defined as any of following periods: bypass transition period, primary re-ignition period, reduced load period, start-up or shutdown. [District Rule 4703, 3.33] Federally Enforceable Through Title V Permit

24. Bypass Transition Period shall be defined as the duration of time that a gas turbine's operation transitions between the heat recovery steam generator and bypass exhaust stacks, provided all of the following conditions are met: a) The selective catalytic reduction catalyst is not within the required temperature range or the required ammonia saturation level has not yet been achieved; b) The duration of a bypass transition period shall not exceed two hours; c) NOx emissions shall not exceed 15 ppmvd, corrected to 15% O2, averaged over two (2) hours; and d) The applicable CO compliance limit shall not be exceeded. [District Rule 4703, 3.2] Federally Enforceable Through Title V Permit

25. Primary Re-ignition Period shall be defined as the duration of time during which a gas turbine is operated at less than rated capacity in order to reset the DLN combustion system following a primary re-ignition, provided all of the following conditions are met: a) The duration of a primary re-ignition period shall not exceed one hour; b) NOx emissions shall not exceed 15 ppmvd, corrected at 15% O2, averaged over one (1) hour; and c) CO emissions shall not exceed 25 ppmvd, corrected at 15% O2. [District Rule 4703, 3.20] Federally Enforceable Through Title V Permit

26. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate, not to exceed one hour. [District Rule 4703, 3.23] Federally Enforceable Through Title V Permit

27. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during each transitional operation period. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit

28. No more than 6.00 MMscf/day of natural gas shall be consumed by gas turbine and no more than 2.47 MMscf/day of natural gas shall be consumed by duct burners. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. Maximum emissions from turbines S-2234-52 & -53 and standby boilers/heaters S-2234-1 & -3 shall not exceed the following daily emission limitations (DEL): PM10: 50.6 lb/day, NOx (as NO2): 245.7 lb/day, VOC: 51.4 lb/day, and CO: 544.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

30. During days of gas turbine startup/shutdown, daily NO2 and CO emissions shall be calculated by natural gas consumption rates, CEM results, and emission factors for standby boilers/heaters. [District Rule 2201] Federally Enforceable Through Title V Permit

31. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbines for normal operation and startup/shutdown periods, and in LTS-1 & LTS-2 gas plant standby boilers/heaters. [District Rule 2201] Federally Enforceable Through Title V Permit

32. Permittee shall maintain daily records of NO2 and CO emission calculations during days of gas turbine startup/shutdown, and such records shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Permittee shall maintain accurate records of CEM printouts, and daily natural gas consumption in gas turbine & duct burners, and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Permittee shall report the following emission exceedances to the District: emission rates of NOx and CO on a 3-hr rolling average, NSPS NOx emission rate on one hour average, and DEL of NOx & CO during days of gas turbine engine startup/shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Gas turbine lube oil system atmospheric vent shall be equipped with aerosol/smoke control provisions. [District Rule 2201] Federally Enforceable Through Title V Permit

36. Emission rates from gas turbine lube oil vent shall not exceed the following: PM10: 0.02 lb/hr and VOC: 0.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

37. PM10 and VOC emissions from lube oil vent shall be measured by source testing within 60 days upon detection of visible emissions in excess of 5% opacity or Ringelmann 1/4 from gas turbine lube oil vent. [District Rule 2201] Federally Enforceable Through Title V Permit

38. Except during periods of startup/shutdown, emission rates (3-hr rolling average) from gas turbine combustion shall not exceed: PM10: 0.004 lb/MMBtu, NOx as NO2: 0.013 lb/MMBtu & 3.75 ppmvd @ 15% O2, VOC: 0.004 lb/MMBtu, and CO: 0.043 lb/MMBtu. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

39. Except during periods of startup/shutdown, emission rates (3-hr rolling average) from duct burner combustion shall not exceed: PM10: 0.001 lb/MMBtu, NOx as NO2: 0.008 lb/MMBtu, VOC: 0.001 lb/MMBtu, and CO: 0.007 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

40. If NOx CEM data & source testing results show compliance at lower NOx emission than 3.75 ppmvd @ 15% O2, District may adjust permitted NOx emission rate 12 months after complete implementation of this approval according to CEM data & testing results. [District Rule 2201] Federally Enforceable Through Title V Permit

41. NOx, VOC, CO, and ammonia emissions shall be measured by source testing annually 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

42. Permittee shall maintain steam to fuel ratio during annual compliance testing to within +/- 5% of the average daily values recorded during the 60 day period prior to annual testing. [District Rule 2201] Federally Enforceable Through Title V Permit

43. Permittee shall maintain exhaust gas temperatures at SCR and oxidation catalyst inlets to within +/- 5% of the average daily values recorded during the 60 day period prior to annual testing. [District Rule 2201] Federally Enforceable Through Title V Permit

44. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

45. The results of each source test shall be submitted to the District within 60 days of field testing. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

46. LTS-1 and LTS-2 gas plants (S-2234-3 & '1) standby boilers/heaters shall only be used when one or both gas turbines (S-2234-52 & '53) are inoperative. [District Rule 2201] Federally Enforceable Through Title V Permit

47. Gas turbine engine shall be equipped with G.E. Steward Stevenson turbine combustor steam injection system, Mitsubishi/Applied Thermal Systems selective catalytic reduction (SCR) with ammonia injection, and Grace oxidation catalyst system. [District Rule 2201] Federally Enforceable Through Title V Permit

48. Unit shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.0026% by weight. [40 CFR 60.333(a) & (b); 60.332(a)] Federally Enforceable Through Title V Permit

49. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201] Federally Enforceable Through Title V Permit

50. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit

51. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit

52. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the turbine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2, 40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

53. If the turbine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

54. The HHV and LHV of the fuel shall be determined using ASTM D3588-91, ASTM 1826-88, OR ASTM 1945-81. [40 CFR 60.332(a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

55. Performance testing shall be conducted annually to measure NOx and CO emission concentrations using the following test methods: EPA Methods 7E or 20 for NOx emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. The 9-run tests shall be performed at highest physically achievable load of the gas turbine. [40 CFR 60.335(a), (b)(7) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Federally Enforceable Through Title V Permit

56. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and date recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)FSand District Rule 1081, 6.4] Federally Enforceable Through Title V Permit

57. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit

58. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [40 CFR 60.335(b) and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit

59. The NOx and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2 and 3, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)(1) and, District Rule 1080, 6.3, 6.5, 6.6, & 7.2] Federally Enforceable Through Title V Permit

60. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

61. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEMS that have been installed pursuant to District Rule 1080, and emission measurements. [District Rules 1080, 7.3, and 4703, 6.2.8, and 40 CFR 60.7 (b)] Federally Enforceable Through Title V Permit

62. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

63. The operator of a stationary gas turbine system shall maintain records of the date, time and duration of each bypass transition period and each primary re-ignition period. [District Rule 4703, 6.2.11] Federally Enforceable Through Title V Permit

64. The operator of a stationary gas turbine system shall provide source test information annually regarding the exhaust gas NOx and CO concentrations and the control efficiency of the emission control device. [District Rule 4703, 6.3.1] Federally Enforceable Through Title V Permit

65. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(a),(b),(c) and District Rule 4703, 5.0] Federally Enforceable Through Title V Permit

66. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

67. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: 40 CFR 60.333 (a) and (b); 60.334(a),(b), and (c)(1); SJVUAPCD Rule 4703, Section 6.2.2 and 1080, 7.3. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

68. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4201, 1081 and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332(c) and (d); 60.334(b) and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

69. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

70. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: 40 CFR 60.332(a), (b); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

71. Operator shall install, operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation, the exhaust gas NOx and O2 concentrations. [40 CFR 60.334(a),(b)] Federally Enforceable Through Title V Permit

72. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit

73. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit

74. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. Operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

75. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; C. applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; D. a negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit

76. NOx and carbon monoxide daily emissions shall be measured by use of CEM data, fuel rate data, and daily hours of operation data. A written record of the required compliance demonstrations shall be maintained and made available for District inspection for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-48-11 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
490 BHP CATERPILLAR MODEL G398 RICH-BURN NATURAL GAS-FIRED IC ENGINE POWERING A GAS COMPRESSOR (K-68 UNX #54313)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2 NOx; SOx (as SO2): 0.6 lb/day; PM10: 10.5 lb/day; CO: 11.6 g/hp-hr and 1,592 ppmv @ 15% O2; or VOC: 58 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
13. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520] Federally Enforceable Through Title V Permit

15. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520] Federally Enforceable Through Title V Permit

16. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
26. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
29. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
30. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520 and 40 CFR 64] Federally Enforceable Through Title V Permit
31. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520 and 40 CFR 64] Federally Enforceable Through Title V Permit
33. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
34. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
35. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-47-11 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35NE **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
793 BHP WAUKESHA NATURAL GAS-FIRED STANDBY IC ENGINE (UNX #14772)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, the operator shall not be required to perform normal maintenance and inspections. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal maintenance and inspections shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any maintenance and inspections required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
12. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
13. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 2201 and 4702, 3.15 and 4.2, 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
19. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
20. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
21. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 1070 and 4702, 6.2.3] Federally Enforceable Through Title V Permit
22. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
23. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
24. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's spark plugs shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-46-11 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35NE **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
793 BHP WAUKESHA NATURAL GAS-FIRED STANDBY IC ENGINE (UNX #13397)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, the operator shall not be required to perform normal maintenance and inspections. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal maintenance and inspections shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any maintenance and inspections required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
12. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
13. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 2201 and 4702, 3.15 and 4.2, 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
19. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
20. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
21. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 1070 and 4702, 6.2.3] Federally Enforceable Through Title V Permit
22. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
23. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
24. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's spark plugs shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-43-8 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
227 BHP CATERPILLAR DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (P4)

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, the operator shall not be required to perform normal maintenance and inspections. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal maintenance and inspections shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any maintenance and inspections required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
11. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
12. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
13. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2520, 9.3.2 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
15. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
16. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
17. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
18. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
19. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rules 2520, 9.4.2 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
20. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rule 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
21. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
22. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

27. The permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

28. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-38-6 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
310 BHP CUMMINS DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP (UNX #51392)

## PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
5. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 4.3.1, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2520, 9.3.2 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 4.3.1, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. An emergency situation is when the engine is operated exclusively to preserve or protect property, human life, or public health during a disaster or state of emergency, such as a fire or flood. [District Rule 4702, 4.3.1] Federally Enforceable Through Title V Permit
9. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the initial start-up hours, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rules 2520, 9.4.2 and 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rule 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
14. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
15. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
16. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

**PERMIT UNIT:** S-2234-31-21 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042GSI RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER, ENLARGED TURBOCHARGER NOZZLE RING, AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-13 UNX #13409)

# PERMIT UNIT REQUIREMENTS

1. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2 (equivalent to 96% NOx reduction), PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
13. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

30. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

32. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

33. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

34. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

35. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

36. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

37. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

47. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

48. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

49. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

50. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-30-19 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER, ENLARGED TURBOCHARGER NOZZLE RING, AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-12 UNX #12493)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2 (equivalent to 96% NOx reduction), PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

18. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

19. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
26. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
27. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
28. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-29-21 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
1,000 BHP WAUKESHA MODEL L7042GSI RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER, ENLARGED TURBOCHARGER NOZZLE RING, AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-11 UNX #13198)

# PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 11 ppmv @ 15% O2, PM10: 0.24 lb/hr, CO: 8.82 lb/hr and 541 ppmv @ 15% O2, or VOC: 2.23 lb/hr and 240 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
13. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrated compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

30. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

32. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

33. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

34. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

35. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

36. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

37. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

47. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

48. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

49. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

50. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-18-13 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-39 UNX #13672)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
6. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 7.72 lb/hr, 1.23 gr/hp-hr and 101 ppmv @ 15% O2 (equivalent to 93% NOx reduction); PM10: 0.49 lb/hr; CO: 22.05 lb/hr and 676 ppmv @ 15% O2; or VOC: 13.23 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
26. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
27. Source testing to measure the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
28. The permittee shall determine the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
29. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

**PERMIT UNIT:** S-2234-17-14 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-38 UNX #13673)

# PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.16 gr/hp-hr and 95 ppm @ 15% O2 (equivalent to 90% NOx reduction), PM10: 1.33 lb/hr, CO: 60.63 lb/hr and 676 ppmv @ 15% O2, or VOC: 36.38 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

26. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrate compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2; and PSD SJ 77-42] Federally Enforceable Through Title V Permit

27. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

**PERMIT UNIT:** S-2234-16-14 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-37 UNX #13674)

# PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.16 gr/hp-hr and 95 ppmv @ 15% O2, PM10: 1.33 lb/hr, CO: 60.63 lb/hr and 676 ppmv @ 15% O2, or VOC: 36.38 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

26. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrate compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2; and PSD SJ 77-42] Federally Enforceable Through Title V Permit

27. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

**PERMIT UNIT:** S-2234-15-14 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-36 UNX #13675)

# PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070] Federally Enforceable Through Title V Permit
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.16 gr/hp-hr and 95 ppmv @ 15% O2, PM10: 1.33 lb/hr, CO: 60.63 lb/hr and 676 ppmv @ 15% O2, or VOC: 36.38 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

26. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrate compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2; and PSD SJ 77-42] Federally Enforceable Through Title V Permit

27. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-14-6 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
105.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #1 PLANT

## PERMIT UNIT REQUIREMENTS

1. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of vent gas combusted in the flare shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
2. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of pilot gas combusted shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
3. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
6. The flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
7. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present, shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
8. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
9. Vent gas emission rates from this unit shall not exceed any of the following limits: NOx - 0.068 lb/MMBtu; VOC - 0.063 lb/MMBtu; CO - 0.37 lb/MMBtu; PM10 - 0.008 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Pilot emission rates from this unit shall not exceed any of the following limits: NOx - 0.094 lb/MMBtu; VOC - 0.0055 lb/MMBtu; CO - 0.04 lb/MMBtu; PM10 - 0.0076 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 41,238 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 371,025 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 2,802.2 lb-NOx; 117.5 lb-SOx; 329.9 lb-PM10; 15,258.1 lb-CO; 2,642.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 25,231 lb-NOx; 1,057 lb-SOx; 2,968 lb-PM10; 137,279 lb-CO; 23,375 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 150 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 58,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 14.1 lb-NOx; 0.4 lb-SOx; 1.1 lb-PM10; 6.0 lb- CO; 0.8 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 5,452 lb-NOx; 165 lb-SOx; 441 lb-PM10; 2,320 lb-CO; 319 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

20. Operators subject to vent gas composition monitoring requirements shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA: Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

21. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

22. Vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311, 6.3.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The operator shall monitor vent gas composition using one of the following five methods as appropriate. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis. 1) Sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours. (b) Samples shall be analyzed using approved test methods; or 2) Integrated sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less. (b) Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample container is full. If sampling is still required pursuant to part (a), a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours. (c) Samples shall be analyzed using approved test methods; or 3) Continuous analyzers that meet the following requirements: (a) The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur. (b) The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon. (c) Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale; or 4). Continuous analyzers employing gas chromatography that meet the following requirements: (a) The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide. (b) The gas chromatography system shall be maintained to be accurate within 5% of full scale; or 5) Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested using approved test methods. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

24. Permittee shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit

25. The operator of a flare with a water seal shall monitor and record the water level and pressure of the water seal daily or as specified on the Permit to Operate. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit

26. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

27. During periods of inoperation of continuous analyzers or auto-samplers, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

28. Permittee shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

29. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

30. Permittee shall keep accurate daily records of flare vent gas and pilot gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. Permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit

32. Records of flare maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit

34. Compliance with the requirements for this permit unit shall be deemed compliance with District Rules 4201. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-12-13 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-43 UNX #13694)

# PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
3. Particulate matter emissions at the point of discharge shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
6. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 5.42 lb/hr, 1.23 gr/hp-hr and 101 ppmv @ 15% O2 (equivalent to 93% NOx reduction); PM10: 0.49 lb/hr; CO: 22.05 lb/hr and 676 ppmv @ 15% O2; or VOC: 13.23 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, the permittee shall maintain on file, copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 12 months. If compliance with the emission limits is demonstrated on two (2) consecutive annual source tests, the testing frequency may be reduced to not less than once every 24 months. If the unit fails to demonstrate compliance with the applicable emission limits, the testing frequency shall return to not less than once every 12 months. [District Rules 2201 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
12. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

19. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201 and Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
26. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
27. Source testing to measure the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) shall be conducted not less than once every 12 months. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
28. The permittee shall determine the NOx emissions from at least one representative engine of this type (Ingersoll-Rand, model 412KVS) at least once per month by either direct NOx measurement, or measurement of other exhaust gas concentrations (e.g. CO and O2) and engine parameters from which NOx emissions can be directly computed. NOx emissions shall be determined from every engine of this type at least once each calendar half. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
29. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

39. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-11-16 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-42 UNX #16650)

# PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.16 gr/hp-hr and 95 ppmv @ 15% O2, PM10: 1.33 lb/hr, CO: 60.63 lb/hr and 676 ppmv @ 15% O2, or VOC: 36.38 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
15. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

16. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

26. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrate compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2; and PSD SJ 77-42] Federally Enforceable Through Title V Permit

27. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-10-16 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-41 UNX #16651)

# PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.16 gr/hp-hr and 95 ppmv @ 15% O2, PM10: 1.33 lb/hr, CO: 60.63 lb/hr and 676 ppmv @ 15% O2, or VOC: 36.38 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
15. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

16. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

26. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrate compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.4.2, and 4702, 6.3.2; and PSD SJ 77-42] Federally Enforceable Through Title V Permit

27. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-9-16 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-40 UNX #16652)

# PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Approved locations for this equipment: any site within facility S-2234. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The operator shall notify the District in writing at least two weeks prior to starting operations at a new location. [District Rule 1070]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Sulfur content of fuel combusted by IC engine shall not exceed 5 gr S/100 scf. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Emissions rates shall not exceed any of the following limits: NOx (as NO2): 1.16 gr/hp-hr and 95 ppmv @ 15% O2, PM10: 1.33 lb/hr, CO: 60.63 lb/hr and 676 ppmv @ 15% O2, or VOC: 36.38 lb/hr and 710 ppmv @ 15% O2. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
12. NOx emissions rate shall not exceed 2.00 gr/hp-hr. [PSD SJ 77-42] Federally Enforceable Through Title V Permit
13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
15. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

16. If the engine is not fired on PUC-regulated natural gas, then the sulfur content (as hydrogen sulfide) of the natural gas being fired in the IC engine shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. If the engine is not fired on PUC-regulated natural gas, the sulfur content (as hydrogen sulfide) of each fuel source shall be tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. This average shall be multiplied by the appropriate factor to determine compliance with the hourly emission limits. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported. [District Rules 2520, 9.4.2 and 4702, 6.3.3] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

21. IC engine shall be demonstrated to be in compliance with NOx and CO emissions limits of Rule 4702 prior to final compliance date. [District Rule 4702] Federally Enforceable Through Title V Permit

22. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

26. NOx, CO, and VOC emissions shall be measured (source tested) not less than every 12 months. If compliance with the emission limits is demonstrated for 2 consecutive years, testing frequency may be reduced to every 24 months. If the unit fails to demonstrate compliance with the emission limits, the testing frequency shall return to not less than every 12 months. NOx percent reduction compliance shall be demonstrated every 24 months. [District Rules 2201, 2520 9.3.2, and 4702, 6.3.2; and PSD SJ 77-42] Federally Enforceable Through Title V Permit

27. Permittee shall monitor the nitrogen oxides (NOx) concentration in the engine exhaust with a facility conducted noncertified self test at least on a monthly basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit

32. The facility conducted noncertified self test shall be performed for NOx according to ARB Method 100 (or EPA Method 7E). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

37. IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

38. The permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

40. The engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

41. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

42. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

43. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

44. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

45. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 Subpart ZZZZ. The oil analysis must be performed every 2,160 hours of operation or every 12 months, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

46. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-8-6 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
104.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #2 PLANT

## PERMIT UNIT REQUIREMENTS

1. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of vent gas combusted in the flare shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
2. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of pilot gas combusted shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
3. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
6. The flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
7. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present, shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
8. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
9. Vent gas emission rates from this unit shall not exceed any of the following limits: NOx - 0.068 lb/MMBtu; VOC - 0.063 lb/MMBtu; CO - 0.37 lb/MMBtu; PM10 - 0.008 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Pilot emission rates from this unit shall not exceed any of the following limits: NOx - 0.094 lb/MMBtu; VOC - 0.0055 lb/MMBtu; CO - 0.04 lb/MMBtu; PM10 - 0.0076 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 41,238 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 371,025 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 2,802.2 lb-NOx; 117.5 lb-SOx; 329.9 lb-PM10; 15,258.1 lb-CO; 2,642.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 25,231 lb-NOx; 1,057 lb-SOx; 2,968 lb-PM10; 137,279 lb-CO; 23,375 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 150 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 58,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 14.1 lb-NOx; 0.4 lb-SOx; 1.1 lb-PM10; 6.0 lb- CO; 0.8 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 5,452 lb-NOx; 165 lb-SOx; 441 lb-PM10; 2,320 lb-CO; 319 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

20. Operators subject to vent gas composition monitoring requirements shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA: Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

21. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

22. Vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311, 6.3.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The operator shall monitor vent gas composition using one of the following five methods as appropriate. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis. 1) Sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours. (b) Samples shall be analyzed using approved test methods; or 2) Integrated sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less. (b) Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample container is full. If sampling is still required pursuant to part (a), a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours. (c) Samples shall be analyzed using approved test methods; or 3) Continuous analyzers that meet the following requirements: (a) The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur. (b) The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon. (c) Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale; or 4). Continuous analyzers employing gas chromatography that meet the following requirements: (a) The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide. (b) The gas chromatography system shall be maintained to be accurate within 5% of full scale; or 5) Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested using approved test methods. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

24. Permittee shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit

25. The operator of a flare with a water seal shall monitor and record the water level and pressure of the water seal daily or as specified on the Permit to Operate. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit

26. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

27. During periods of inoperation of continuous analyzers or auto-samplers, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

28. Permittee shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

29. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

30. Permittee shall keep accurate daily records of flare vent gas and pilot gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. Permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit

32. Records of flare maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit

34. Compliance with the requirements for this permit unit shall be deemed compliance with District Rules 4201. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-4-13 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NE35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
NATURAL GASOLINE, BUTANE, AND PROPANE LOADING RACK CONSISTING OF 7 LOADING ISLANDS, 7 LOADING STATIONS, 14 HOSES, 14 VAPOR RETURN LINES AND A VAPOR RECOVERY SYSTEM

## PERMIT UNIT REQUIREMENTS

1. While dormant, the liquid loading hoses shall be removed and the gasoline transfer pumps shall be locked out. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the fuel lanes that load natural gasoline (Lane 1 and Lane 2) as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing of the fuel lanes that load natural gasoline (Lane 1 and Lane 2) shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of the fuel lanes that load natural gasoline (Lane 1 and Lane 2), normal source testing shall resume [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this the fuel lanes that load natural gasoline Lane 1 and Lane 2) shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that the fuel lanes that load natural gasoline (Lane 1 and Lane 2) are designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Operation shall be equipped with two 15 hp product transfer pumps. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC emissions from the vapor collection and control system shall be determined using 40CFR 60.503. "Test Methods and Procedures" and EPA Reference Methods 2A, 2B, 25A and 25B and ARB Method 432, or ARB Method 2-4. After an initial compliance determination, determinations shall be made whenever an inspection reveals conditions indicative of performance less effective than that during previous compliance determinations. [District Rule 4624] Federally Enforceable Through Title V Permit
9. Loading rack shall incorporate vapor loss collection system. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Nitrogen purge system shall be a closed system such that all VOC's are displaced to the vapor control system via closed piping for reprocessing in S-2234-3. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The loading rack shall be equipped with bottom loading and a vapor collection and control system such that VOC emissions do not exceed 0.08 pounds per 1000 gallons of organic liquid with greatest vapor pressure loaded. [District Rule 4624 and Kern County Rule 413] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum except when transferring liquefied petroleum gas. [District Rule 4624] Federally Enforceable Through Title V Permit

13. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 lb/1000 gallons loaded; or Class 2 loading facilities equipped with a system to control at least 95% of VOC displaced; and which operate so the delivery tank does not exceed 18 inches water column pressure nor 6 inches water column vacuum. [District Rule 4624] Federally Enforceable Through Title V Permit

14. Loading and vapor collection and control equipment shall be designed, installed, maintained and operated such that there are no leaks or excess organic liquid drainage at disconnection. A leak shall be defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured in accordance with EPA Method 21. Excess liquid drainage shall be defined as exceeding 10 mls per average of 3 consecutive disconnects. [District Rule 4624 and Kern County Rule 413] Federally Enforceable Through Title V Permit

15. Construction, reconstruction (as defined in District Rule 4001, amended January 19, 1995), or expansion of any top loading facility shall not be allowed. [District Rule 4624] Federally Enforceable Through Title V Permit

16. Analysis of halogenated exempt compounds shall be by ARB Method 432. [District Rule 4624] Federally Enforceable Through Title V Permit

17. TVP shall be measured using Reid vapor pressure ASTM Method No. D-323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 deg F, TVP may be determined by Reid Vapor pressure at 100 deg F and ARB approved calculations. [District Rule 4624] Federally Enforceable Through Title V Permit

18. TVP of crude oil with an API gravity less than 30ø as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4624] Federally Enforceable Through Title V Permit

19. During the loading of organic liquids, the operator shall perform and record the results of monthly leak inspections of the loading and vapor collection equipment at each loading arm. Leak inspections shall be conducted using sight, sound, smell and instrument methods to detect leaks. Instrument detection shall be conducted using EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases: A) Zero air (less than 10 ppm of hydrocarbon in air); and B) Mixture of methane and air at a concentration of about, but less than, 10,000 ppm methane. [District Rule 2520] Federally Enforceable Through Title V Permit

20. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect. In addition, the operator shall perform and record the results of monthly drainage inspections at disconnect for each loading arm. If no excess drainage conditions are found during five consecutive monthly inspections, the drainage inspection frequency may be changed from monthly to quarterly. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall return to monthly. [District Rule 2520] Federally Enforceable Through Title V Permit

21. Drainage inspections shall be completed before 10:00 AM the day of inspection. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520] Federally Enforceable Through Title V Permit

22. Each detected leak shall be repaired within 15 calendar days of detection. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The permittee shall maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired, reasons for any leak repair interval in excess of 15 days), and E) inspector name and signature. [District Rule 2520] Federally Enforceable Through Title V Permit

24. All records necessary to determine compliance with the VOC emission limit for this unit shall be maintained for a period of at least 5 years and shall include component counts and recognized emission factors for fugitive emission sources. [District Rule 2520] Federally Enforceable Through Title V Permit

25. The loading rack's vapor collection and control system (VCCS) shall be tested annually to demonstrate the pressure in the delivery tanks being loaded complies with the requirements specified in this permit. Compliance shall be determined by calibrating and installing a liquid manometer, magnehelic device, or other instrument demonstrated to be equivalent, capable of measuring up to 500 mm water gauge pressure with a precision of + or - 2.5 mm water gauge, on the terminal's VCCS at a pressure tap as close as possible to the connection with the product tank truck. The highest instantaneous pressure measurement as well as all pressure measurements at 5 minute intervals during delivery vessel loading must be recorded. Every loading position must be tested at least once during the annual performance test. [District Rule 2520] Federally Enforceable Through Title V Permit

26. Compliance with these permit conditions in the Title V permit shall be deemed compliance with the requirements of Kern County Rule 413. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

27. Compliance with these permit conditions in the Title V permit shall be deemed compliance with the following requirements: District Rule 4624 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-3-21 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NE35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
LOW TEMPERATURE SEPARATION PLANT #1 INCLUDING FREE WATER KNOCKOUT(S), ACCUMULATOR(S), CHILLER(S), LOW TEMPERATURE SEPARATOR(S), DE-ETHANIZER & REBOILER, DE-BUTANIZER & REBOILER, DE-PROPANIZER & REBOILER, AND INLET HEAT EXCHANGER:

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Operation shall include two 27.5 MMBtu/hr process heaters FF-44-301 & FF-44-302 (shared with S-2234-1). The two process heater shall be equipped with selective catalytic reduction systems. [District Rules 2201, 4306] Federally Enforceable Through Title V Permit
8. Two process heaters F-44-301 & F-44-302 shall be used on a standby basis, only during periods when one or both gas turbines (S-2234-52 & '-53) are inoperative. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Fugitive VOC emission rate from the control system added to control emissions from glycol dehydrator reboiler vent, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c less than or equal to 10,000 ppm (Feb 1999), shall not exceed 0.20 lb/day. Permittee shall demonstrate compliance with specified emissions limit by calculation using the installed components and emissions factors specified above. Permittee shall maintain with the permit an accurate record by number and type of the installed fugitive components and shall make such record available for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Fugitive VOC emission rate from the propane compressor, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c less than or equal to 10,000 ppm (Feb 1999), shall not exceed 1.9 lb/day. Permittee shall demonstrate compliance with specified emissions limit by calculation using the installed components and emissions factors specified above. Permittee shall maintain with the permit an accurate record by number and type of the installed fugitive components and shall make such record available for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Control system(s) employed to control emissions from glycol dehydration system vent(s) shall be maintained in a leak free condition, as defined in Rule 4408. [District Rule 4408, Sections 3.8.2, 5.3 and 6.3.2] Federally Enforceable Through Title V Permit
12. The propane compressor shall be maintained in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4409 and shall be reported as a deviation. [District Rule 2201 and Rule 4409, Section 3.20] Federally Enforceable Through Title V Permit
13. Permittee shall maintain monthly records of amount of gas dehydrated and other records as required by Rule 4408. The permittee shall make such records readily available for District inspection upon request and shall be retained on the premises for a period of not less than five years. [District Rule 4408, Sections 6.1.1, 6.1.2 and 6.1.4] Federally Enforceable Through Title V Permit
14. Heaters shall be fired exclusively on PUC quality natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
15. Permittee shall maintain operational records of standby process heaters FF-44-301 & FF-44-302 , including date, time, and total amount of natural gas consumed. These records shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All process vessels and lines handling volatile organic compounds shall vent only to other process vessels, District-approved flare, or substrata injection system. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Total duration of process heater startup shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Total duration of process heater shutdown shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. Except during start-up and shutdown, emissions rates from process heater exhaust shall not exceed any of the following limits: 6 ppmvd NOx @ 3% O2 or 0.007 lb-NOx/MMBtu, 0.002 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 47 ppmvd @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
22. Heat exchangers utilizing cooling water shall be properly maintained to prevent VOC emissions from cooling towers. [District Rule 2201] Federally Enforceable Through Title V Permit
23. The operator shall test the circulating water from the cooling tower at least every six months to determine the concentration of hexavalent chromium. The District shall be notified 48 hours in advance of any sampling of cooling water for testing. Required testing may be discontinued and an exemption sought when two consecutive required tests show hexavalent chromium concentrations less than 0.15 mg/l. [District Rule 7012] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Source testing to measure natural gas-combustion NOx and CO emissions, and NH3 emissions, from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4102, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. Operator shall comply with other applicable requirements of District Rule 7012 (amended 12/17/92). [District Rule 7012] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

27. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

28. Continuous Emissions Monitoring (CEM) equipment shall be in place and operating whenever process heater is operating, except for CEM systems breakdowns, repairs, and required calibration checks and zero and span adjustments, in accordance with 40 CFR 60.13(e). NOx (as NO2) and O2 must be recorded continuously when the CEM equipment is operating. [District Rules 1080, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

29. Operation, calibration and data reduction for the CEM equipment shall be in accordance with the requirements of 40 CFR Part 51, 40 CFR Parts 60.7 and 60.13 (except subsection h), 40 CFR Park 60 Appendix B (Performance Specifications) and 40 CFR Part 60 Appendix F (Quality Assurance Procedures, and applicable provisions of Rule 1080 (Stack Monitoring). [District Rules 1080, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

30. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

32. Source testing shall be performed for the boilers and heaters using EPA Method 7E or ARB Method 100. Source testing shall be conducted within two year after the issuance of this Title V permit and each unit shall be tested during each year in which the unit operates 720 hours or more. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

34. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested for sulfur content (as hydrogen sulfide). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

35. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content (as hydrogen sulfide) of the gaseous fuel being fired in the unit shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

37. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

38. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

39. Continuous Emissions Monitoring System (CEMS) emissions measurements shall be averaged over a period of 15 consecutive minutes to demonstrate compliance with the applicable emission limits. Any 15-consecutive-minute block average CEMS measurement exceeding the applicable emission limits shall constitute a violation. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

40. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

41. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

42. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

43. SOx emissions shall be determined using EPA Method 6C, EPA Method 8, or ARB Method 100. [District Rule 4320] Federally Enforceable Through Title V Permit

44. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 240-87 or D 2382-88 for liquid hydrocarbon fuels;ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2, 4305, 4306, and 4320, 6.2.1] Federally Enforceable Through Title V Permit

45. NH3 emissions for source test purposes shall be determined using BAAQMD method ST-1B. [District Rule 4301] Federally Enforceable Through Title V Permit

46. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2; County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare)] Federally Enforceable Through Title V Permit

47. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2] Federally Enforceable Through Title V Permit

48. The requirements of 40 CFR 60 Subpart LLL do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-1-20 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
LOW TEMPERATURE SEPARATION PLANT #2 INCLUDING PROCESS PUMPS, HEAT EXCHANGER(S)/COOLER(S), COOLING TOWER, FUEL GAS/LIQUID K.O. VESSEL(S) VENTED TO FLARE, AND DE-ETHANIZER, DE-BUTANIZER, DE-PROPANIZER COLUMNS VENTED TO FLARE, AND INLET HEAT EXCHANGER

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel lines to heaters F-44-301 and F-44-302 shall be physically disconnected from the units. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this dormant unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this dormant unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operation shall include refrigerant regeneration system, glycol dehydration system, and two compliant dormant 27.5 MMBtu/hr process heaters F-44-301 & F-44-302 (shared with S-2234-3). [District Rule 2201] Federally Enforceable Through Title V Permit
8. Two process heaters F-44-301 & F-44-302 shall be used on a standby basis, only during periods when one or both gas turbines (S-2234-52 & '53) are inoperative. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Fugitive VOC emission rate from the control system added to control emissions from glycol dehydrator reboiler vent, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c less than or equal to 10,000 ppm (Feb 1999), shall not exceed 0.20 lb/day. Permittee shall demonstrate compliance with specified emissions limit by calculation using the installed components and emissions factors specified above. Permittee shall maintain with the permit an accurate record by number and type of the installed fugitive components and shall make such record available for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Fugitive VOC emission rate from the propane compressor calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c less than or equal to 10,000 ppm (Feb 1999), shall not exceed 1.9 lb/day. Permittee shall demonstrate compliance with specified emissions limit by calculation using the installed components and emissions factors specified above. Permittee shall maintain with the permit an accurate record by number and type of the installed fugitive components and shall make such record available for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Control system(s) employed to control emissions from glycol dehydration system vent(s) shall be maintained in a leak free condition, as defined in Rule 4408. [District Rule 4408] Federally Enforceable Through Title V Permit
12. The propane compressor shall be maintained in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4409 and shall be reported as a deviation. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
13. Permittee shall maintain monthly records of amount of gas dehydrated and other records as required by Rule 4408. The permittee shall make such records readily available for District inspection upon request and shall be retained on the premises for a period of not less than five years. [District Rule 4408] Federally Enforceable Through Title V Permit
14. Process heaters shall be fired exclusively by PUC quality natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
15. Permittee shall maintain operational records of standby process heaters FF-44-301 & FF-44-302, including date, time, and total amount of natural gas consumed. These records shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All process vessels and lines handling volatile organic compounds shall vent only to other process vessels, District-approved flare, or substrata injection system. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Total duration of process heater startup shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Total duration of process heater shutdown shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. Except during start-up and shutdown, emissions rates from process heater exhaust shall not exceed any of the following limits: 6 ppmvd NOx @ 3% O2 or 0.007 lb-NOx/MMBtu, 0.002 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 47 ppmvd @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
22. Ammonia (NH3) emissions shall not exceed 10 ppmvd @ 3% O2 over a 15 minute averaging period. [District Rule 4102]
23. Exhaust stack shall be equipped with adequate provisions facilitating the collection of samples consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Source testing to measure natural gas-combustion NOx and CO emissions, and NH3 emissions, from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4102, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

26. Continuous Emissions Monitoring (CEM) equipment shall be in place and operating whenever process heater is operating, except for CEM systems breakdowns, repairs, and required calibration checks and zero and span adjustments, in accordance with 40 CFR 60.13(e). NOx (as NO2) and O2 must be recorded continuously when the CEM equipment is operating. [District Rules 1080, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

27. Operation, calibration and data reduction for the CEM equipment shall be in accordance with the requirements of 40 CFR Part 51, 40 CFR Parts 60.7 and 60.13 (except subsection h), 40 CFR Park 60 Appendix B (Performance Specifications) and 40 CFR Part 60 Appendix F (Quality Assurance Procedures, and applicable provisions of Rule 1080 (Stack Monitoring). [District Rules 1080, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

28. CEM records shall be retained for at least 5 years. Records shall include occurrence and duration of start-up, shutdown or malfunction; performance testing, calibrations, checks, and maintenance of CEM; and emission measurements. [District Rule 1080] Federally Enforceable Through Title V Permit

29. Daily summaries of CEM records for each calendar quarter shall be submitted to the District within 30 days of the end of the calendar quarter. Hourly fuel stack gas flow rates and/or hourly fuel flow rates shall be measured during operation and included in quarterly reports. [District Rule 1080] Federally Enforceable Through Title V Permit

30. A report shall be submitted to the District within 30 days of the end of each calendar quarter identifying the time and date of each exceedance of emission limits, the excess emissions generated, and any conversion factor used to calculate emissions. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The quarterly report shall identify each period of excess emissions that occurs during startups, shutdowns, or malfunctions. The nature and cause of each malfunction, corrective action taken, and preventative measures adopted shall also be reported. [District Rule 1080] Federally Enforceable Through Title V Permit

32. Heat exchangers utilizing cooling water shall be properly maintained to prevent VOC emissions from cooling towers. [District Rule 2201] Federally Enforceable Through Title V Permit

33. The operator shall test the circulating water from the cooling tower at least every six months to determine the concentration of hexavalent chromium. The District shall be notified 48 hours in advance of any sampling of cooling water for testing. Required testing may be discontinued and an exemption sought when two consecutive required tests show hexavalent chromium concentrations less than 0.15 mg/l. [District Rule 7012] Federally Enforceable Through Title V Permit

34. Operator shall comply with other applicable requirements of District Rule 7012 (amended 12/17/92). [District Rule 7012] Federally Enforceable Through Title V Permit

35. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

36. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

38. Continuous Emissions Monitoring System (CEMS) emissions measurements shall be averaged over a period of 15 consecutive minutes to demonstrate compliance with the applicable emission limits. Any 15-consecutive-minute block average CEMS measurement exceeding the applicable emission limits shall constitute a violation. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

39. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520] Federally Enforceable Through Title V Permit

40. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit

41. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301] Federally Enforceable Through Title V Permit

42. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

43. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

44. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, 4320] Federally Enforceable Through Title V Permit

45. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, 4320] Federally Enforceable Through Title V Permit

46. Stack gas oxygen shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

47. SOx emissions shall be determined using EPA Method 6C, EPA Method 8, or ARB Method 100. [District Rule 4320] Federally Enforceable Through Title V Permit

48. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 240-87 or D 2382-88 for liquid hydrocarbon fuels;ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rules 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

49. NH3 emissions for source test purposes shall be determined using BAAQMD method ST-1B. [District Rule 4301] Federally Enforceable Through Title V Permit

50. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520 and 4301] Federally Enforceable Through Title V Permit

51. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested for sulfur content (as hydrogen sulfide). [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

52. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit

53. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content (as hydrogen sulfide) of the gaseous fuel being fired in the unit shall be calculated using a continuous monitor averaged over a daily basis in accordance with SCAQMD Rule 431.1 Attachment A (as amended June 12, 1998). [District Rule 2520] Federally Enforceable Through Title V Permit

54. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520; County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare)] Federally Enforceable Through Title V Permit

55. The requirements of 40 CFR 60 Subpart LLL do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

**FACILITY:** S-2234-0-4 **EXPIRATION DATE:** 10/31/2021

# FACILITY-WIDE REQUIREMENTS

1. Equipment that is in vacuum service is exempt from the control and monitoring requirements and work practice standards of District Rule 4409 and applicable NSPS requirements, provided the equipment is identified as such in the Operator Management Plan. [District Rule 4409, 4.2.8 and 40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit
2. For determining compliance with applicable NSPS requirements, the test methods and procedures at 40 CFR 60.485 shall be used. Alternative test methods may be used subject to approval pursuant to 40 CFR 60.8. [40 CFR 60.8, 40 CFR 60.485] Federally Enforceable Through Title V Permit
3. For all components that are subject to applicable NSPS requirements and are included in the permit unit addendum to the operator management plan and that comply with the applicable NSPS inspection, maintenance and repair requirements as specified by the terms and condition of this permit, a Title-V permit shield is granted for applicable requirements at 40 CFR 60, Subpart KKK. [40 CFR 60, Subpart KKK] Federally Enforceable Through Title V Permit
4. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements as specified in this permit unit. [District Rule 4409, 4.2.8 and 40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit
5. For open ended lines and open ended valves, subject to applicable NSPS, each open-ended valve or line shall be sealed with two (2) valves, a blind flange, a cap, or a plug at all times, except during operations requiring process fluid flow through the valve or line. Open ended lines and valves designed to open automatically in the event of an emergency are exempt from this requirement [40 CFR 60.482-6(a) and 40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit
6. For valves subject to applicable new source performance standards (NSPS), any valve in gas/vapor service or light liquid service that is designated in the Operator Management Plan as an unsafe-to-monitor valve is exempt from the monthly NSPS leak inspection requirements, provided: 1) the owner/operator demonstrates the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence, and 2) a written plan is adhered to that requires monitoring of the valve as frequently as practicable during safe-to-monitor times and at least annually and during shutdown. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit
7. For valves subject to applicable NSPS, any valve in gas/vapor service or light liquid service that is designated in the Operator Management Plan as a difficult-to-monitor (inaccessible) valve is exempt from the monthly NSPS leak inspection requirements, provided: 1) the owner/operator demonstrates the valve cannot be monitored without elevating the monitoring personnel more than 15 feet above a support surface, or that it is over 6 feet away from a platform , 2) the process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 60.15 or if the owner/operator designates less than 3.0% of the total number of valves as difficult-to-monitor, and 3) a written plan is adhered to that, requires monitoring of the valve at least annually and during shutdown. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

8. Any components of the closed vent system that are designated as unsafe to inspect are exempt from the inspection requirements specified in this permit unit if the owner or operator complies with the following: 1) the owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with the inspection requirements; 2) the owner or operator identifies the components in the Operator Management Plan; 3) the owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times; and 4) inspection and required repair of the components is performed at least annually and during shutdown. [District Rule 4409, 5.3.7.5 and 40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit

9. For components subject to applicable NSPS, when a leak is detected, a weatherproof and readily visible tag shall be attached, bearing the equipment identification number and date which the leak is detected. The tag on a valve shall remain in place until after it has been monitored for 2 successive months and no leak has been detected. The tag on all other equipment may be removed after repair and re-inspection document compliance with the applicable NSPS. [40 CFR 60.486(b) and 60.635(b)(1)] Federally Enforceable Through Title V Permit

10. Any leak detected on the basis of sight, smell, or sound shall be identified by the operator affixing a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until repair and reinspection document compliance, whether or not operator inspection is otherwise required by this permit. [District Rule 4409, 5.3.3 and 5.3.3] Federally Enforceable Through Title V Permit

11. Any leaking component and any leak shall be repaired to a leak-free condition and reinspected within 15 calendar days. [40 CFR 60.482-7] Federally Enforceable Through Title V Permit

12. For components subject to applicable NSPS standards, except as otherwise provided by 40 CFR 60.482-9, any component leak shall be repaired to a leak-free condition, or vented to a flare satisfying the requirements of 40 CFR 60.18, or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 or EPA Method 18 within fifteen (15) calendar days of detection. A first attempt at repair shall be made no later than 5 calendar days after leak detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates necessary and sufficient actions are being taken to correct the leak within this time period. [40 CFR 60.482-2(c)(1) and (c)(2), 60.482-3(g), 60.482-7(d), 60.482-8(c), and 60.633(b)(3)] Federally Enforceable Through Title V Permit

13. For components subject to applicable NSPS, if the leaking component is an essential part of a critical process identified in the operator management plan and which cannot be immediately shut down for repairs, the operator shall minimize the leak within 15 calendar days. If the leak which has been minimized still exceeds the applicable NSPS standard, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than six months from the date of the original leak detection for pumps and one year from the date of the original leak detection for other components. Delay of repair is allowed for equipment which is isolated from the process and which does not remain in VOC service and delay of repair is is allowed pursuant to 40 CFR 60.482-2(c)(1), 40 CFR 60.482-3(g)(1), 40 CFR 60.482-4(b)(1), 40 CFR 60.482-7(d)(1),40 CFR 60.482-8(c)(1). [40 CFR 60.482- 2(c)(1), 40 CFR 40 CFR 60.482-3(g)(1), 40 CFR 60.482-4(b)(1), 40 CFR 60.482-7(d)(1),40 CFR 60.482-8(c)(1), 60.482-9(a) and (b)] Federally Enforceable Through Title V Permit

14. Delay of repair of a closed vent system for which leaks have been detected is allowed if the closed vent system is an essential part of a critical process identified in the operator management plan which cannot be immediately shut down for repairs or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. However the operator shall minimize the leak within 15 calendar days. If the leak which has been minimized still exceeds the limit in this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. [40 CFR 60.482-9] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

15. For the purpose of determining compliance with applicable NSPS, each operator shall maintain an inspection log for the components subject to NSPS inspection requirements that contains the following information: 1) instrument, operator, and equipment identification numbers; 2) date of leak detection; 3) dates and repair method of each attempt to repair the leak; 4) "above 10,000" if the maximum instrument reading after each repair attempt is equal to or greater than 10,000 ppm; 5) "repair delayed", reason for delay, signature of individual whose decision it was that repair could not be effected without a process shutdown, and expected date of successful repair if a leak is not repaired within 15 days of detection; 6) dates of process unit shutdown that occur while the equipment is unrepaired; 7) date of successful repair and emission level of recheck after leak is repaired. [40 CFR 60.486(c) and 60.635(2)(i) through (ix)] Federally Enforceable Through Title V Permit

16. Each piece of equipment subject to requirements of this permit is presumed to be in VOC service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VOC service or in wet gas service. For a piece of equipment to be considered not in VOC service, it must be determined that the VOC content can be reasonably expected never to exceed 10.0 percent by weight. For a piece of equipment to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. For purposes of determining the percent VOC content of the process fluid that is contained in or contacts a piece of equipment, procedures that conform to the methods described this permit shall be used. [40 CFR 60.485(d) and 60.632(f)] Federally Enforceable Through Title V Permit

17. Compliance the no detectable emission standards for this permit unit shall be determined as follows: 1) EPA Method 21 shall be followed, 2) Method 21 shall be used to determine the background level and all potential leak interfaces shall be traversed as close to the inter face as possible, and 3) the arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm to determine compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit

18. For valves subject to applicable NSPS, if the operator elects to comply with the allowable percentage of leaking valves then for this permit unit, the operator shall notify the APCO 90 days before implementing these alternatives. [40 CFR 60.483-1(b)(1) and (d), 60. 483-2(a)(2), and 60.487(d)] Federally Enforceable Through Title V Permit

19. For valves subject to applicable NSPS, if the allowable percentage of leaking valves is selected, then a performance test shall be conducted initially upon designation for allowable percentage of leaking valves, annually, and at other times requested by the APCO. The performance test shall be conducted as follows: 1) all valves in gas/vapor and light liquid service shall be monitored within 1 week using EPA Method 21 and 2) the leak percentage shall be determined by dividing the number of leaking valves detected and valves for which repair has been delayed by the number of valves in gas/vapor and light liquid service in this permit unit, 3) a record must be kept of the percent of valves found leaking during each leak detection period. [40 CFR 60.483-1(b)(2) and (c) and 60. 483-2(b)(5) and (6)] Federally Enforceable Through Title V Permit

20. For compressors subject to applicable NSPS, each compressor shall meet the applicable control system requirements of 40 CFR 482-3(a) - (i), except as otherwise provided by 40 CFR 60.482-1(c) and 40 CFR 60.482-3(h) and (i). [40 CFR 60.482-3(a) through (j)], 40 CFR 60.482-1(c), 40 CFR 60.482-3(h) and (i), and 40 CFR 60.633] Federally Enforceable Through Title V Permit

21. Compressors that are subject to applicable NSPS, are exempt from requirements of 40 CFR 60.482-3(a) and 40 CFR 60.482-3(b) if the compressor is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process fuel gas system or a control device. Closed vent systems piping shall comply with applicable requirements at 40 CFR 60.482-10. Closed vent vapor recovery systems shall comply with design requirements at 40 CFR 60.482-10(b). Enclosed combustion devices used by closed vent system shall comply with design requirements at 40 CFR 60.482-10(c). Flares used by closed vent systems shall comply with requirements at 40 CFR 60.482-10(d). Closed vent system control devices shall comply with monitoring requirements at 40 CFR 60.482-10(e). [40 CFR 60 .482-3, 40 CFR 60.482-10] Federally Enforceable Through Title V Permit

22. Compressors that are subject to applicable NSPS and are designated in the Operator Management Plan for no detectable leak emission, as indicated by an instrument reading of less than 500 ppm above background, is are exempt from the requirements of 40 CFR 482-3(a)-(h), provided the compressor is tested for compliance with no detectable emissions initially upon designation, annually, and at other times requested by the APCO. [40 CFR 60.482-3(i)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

23. When determining compliance with applicable NSPS, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected. [40 CFR 60.633(b)(2), 40482-7(a), (b), and (c] Federally Enforceable Through Title V Permit

24. For open ended lines or valves subject to applicable NSPS, each open-ended valve or line equipped with a second valve shall be operated so that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit

25. For equipment subject to applicable NSPS when a double block-and-bleed system is being used, the bleed valve or line may remain open only during operations that require venting the line between the block valves. [40 CFR 60.482-6(c)] Federally Enforceable Through Title V Permit

26. Except as provided by applicable NSPS, valves that are subject to NSPS that are in gas/vapor service or light liquid service shall be monitored monthly to detect leaks using EPA Method 21. Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter. If a leak is subsequently detected, monitoring shall revert to monthly. [40 CFR 60.482-7(a), (b), and (c)] Federally Enforceable Through Title V Permit

27. Any valve in gas/vapor service or light liquid service that is designated in the equipment log list for no detectable leak emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the monitoring requirements of 40 CFR 60.482-7(a), provided the valve: 1) has no external actuating mechanism in contact with the process fluid and 2) is tested for and meets compliance with no detectable leak emission initially upon designation, annually and at other times requested by the APCO. [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit

28. For valves subject to applicable NSPS requirements, for a valve in gas/vapor service or light or heavy liquid service, first attempts at repair shall include the following where practicable: 1) tightening of bonnet bolts, 2) replacement of bonnet bolts, 3) tightening of packing gland nuts, and 4) injection of lubricant into lubricant packing. [40 CFR 60.482-7(e) and 60.482-8(d)] Federally Enforceable Through Title V Permit

29. For pumps and valves in heavy liquid service, pressure relief devices in light or heavy liquid service, and flanges and other connectors, that are subject to applicable NSPS requirements, if evidence of a potential leak is found by sight, sound, smell, or any other detection method then the device shall be monitored within 5 days for leak detection in accordance with EPA Method 21. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit

30. In addition to the information required by Rule 4409, the operator management plan shall include an addendum for this permit unit containing the following applicable NSPS information: 1) list of identification numbers for equipment subject to the applicable NSPS requirements, 2) list of identification numbers for equipment which is designated for no detectable emissions and which is signed by the owner/operator, 3) list of equipment identification numbers for pressure relief devices which must be operated with no detectable emissions, 4) dates of each compliance test for emissions below 500 ppm, for all equipment subject to this no detectable emission limit and the background level measured and the maximum instrument reading measured at the equipment, during each test, and 5) list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e) and 60.635(b)(2)(x)] Federally Enforceable Through Title V Permit

31. In addition to the information required by Rule 4409, the operator management plan shall include an addendum for this permit unit containing the following applicable NSPS information: for valves in gas/vapor service and light liquid service: 1) a list of identification numbers for valves designated "unsafe-to-monitor" and for valves designated "difficult-to monitor", 2) an explanation for each valve stating why it is so designated, and 3) the schedule for monitoring each such valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit

32. For valves subject to NSPS annual leak detection alternative requirements, the NSPS inspection log shall include the following information: 1) a schedule of monitoring and 2) the percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit

33. A log containing the following information for pumps and compressors equipped a barrier fluid seal system which includes a seal failure sensor, for which a system failure criteria is required to be established, pursuant to the requirements for this permit unit, shall be maintained and kept in a readily accessible location: 1) the design criterion required by this permit and an explanation and 2) any changes to this criterion and reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

34. For equipment (compressors and components) subject to applicable NSPS, the operator shall maintain information and data used to demonstrate that a piece of equipment is not in VOC service and information and data used to demonstrate that a reciprocating compressor is in wet gas service. The information shall be included in the NSPS inspection log for the permit unit and shall be kept in a readily accessible location. [40 CFR 60.486(j) and 60.635(c)] Federally Enforceable Through Title V Permit

35. Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit

36. Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 øC. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit

37. If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall conduct an initial inspection according to the procedures specified in EPA Method 21 using the calibration gases as specified in the requirements for this permit unit. The owner or operator shall also conduct annual visual inspections for visible, audible, or olfactory indications of leaks. [40 CFR 60.482-10(f)(1) and 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

38. If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall conduct an initial inspection and annual inspections according to the procedures specified in EPA Method 21 using the calibration gases as specified in the requirements for this permit unit. The owner or operator shall also conduct annual visual inspections for visible, audible, or olfactory indications of leaks. [40 CFR 60.482-10(f)(2) and 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

39. Any parts of the closed vent system that are designated as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1) and (f)(2) if the owner or operator complies with the following: 1) the owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and 2) the process unit within which the closed vent system is located becomes an affected facility through modification or reconstruction, as defined in 40 CFR 60.14 and 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and 3) the owner or operator has a written plan that requires inspection of the equipment at least every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum. [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit

40. Closed vent systems and control devices shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit

41. A log shall be maintained containing the following information: 1) identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) for each inspection conducted in accordance with EPA Method 21 during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 4) for each visual inspection conducted for visible, audible, or olfactory indications of leaks during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l) and 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

42. For components subject to applicable NSPS requirements, semiannual reports shall be submitted to the APCO containing the following information: 1) process unit identification, 2) for each month during the reporting period, number of valves, pumps, compressors, and pressure relief devices for which leaks were detected; number of valves, pumps, compressors, and pressure relief devices for which leaks were not repaired within 15 days and a first attempt not made within 5 days of leak detection; the facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible 3) dates of process unit shutdowns which occurred within the reporting period, and 4) revisions to items reported in the initial or subsequent semiannual reports. [40 CFR 60.487(a) and (c) and 60.636(c)] Federally Enforceable Through Title V Permit

43. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit

44. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit

45. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit

46. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (8/11/11). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit

47. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.13.1] Federally Enforceable Through Title V Permit

48. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit

49. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit

50. The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

51. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

52. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

53. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit

54. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit

55. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit

56. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit

57. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit

58. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit

59. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit

60. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit

61. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit

62. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit

63. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit

64. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

65. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit

66. All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit

67. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit

68. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit

69. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit

70. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit

71. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit

72. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8031] Federally Enforceable Through Title V Permit

73. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8041] Federally Enforceable Through Title V Permit

74. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit

75. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit

76. Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit

77. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

78. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit

79. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit

80. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit

81. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

82. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

83. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

84. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

85. For valves, threaded connections, flanges, pipes, pumps, compressors, and other components not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

86. For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

87. For polished rod stuffing boxes (PRSBs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

88. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

89. Minor gas leaks from PRSBs detected during any District inspection shall not be counted toward determination of compliance with this rule provided the permittee repairs, replaces, or removes leaking PRSBs from VOC service as soon as practicable but not later than seven calendar days. [District Rule 4409, 5.1.3.1.2] Federally Enforceable Through Title V Permit

90. Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2] Federally Enforceable Through Title V Permit

91. Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3] Federally Enforceable Through Title V Permit

92. An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1] Federally Enforceable Through Title V Permit

93. A leak from a component is when there is a major liquid leak from the component. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2] Federally Enforceable Through Title V Permit

94. A leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3] Federally Enforceable Through Title V Permit

95. A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

96. When 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

97. When 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

98. When 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

99. When 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

100. When compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

101. When 200 or fewer PRSBs are inspected, a leak is when more than four have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 PRSBs are inspected, a leak is when more than 2.0 % (rounded up to the nearest whole number) of the PRSBs have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

102. When 200 or fewer wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than two or more pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than 1.0 % (rounded up to the nearest whole number) of the pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

103. When pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

104. For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1] Federally Enforceable Through Title V Permit

105. For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2] Federally Enforceable Through Title V Permit

106. All accessible operating pumps, compressors, and PRDs, in service, that are found to be leaking by audio-visual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3] Federally Enforceable Through Title V Permit

107. Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4] Federally Enforceable Through Title V Permit

108. All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5] Federally Enforceable Through Title V Permit

109. All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6] Federally Enforceable Through Title V Permit

110. All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7] Federally Enforceable Through Title V Permit

111. All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

112. All pipes, in service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1] Federally Enforceable Through Title V Permit

113. The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non- Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2] Federally Enforceable Through Title V Permit

114. Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10] Federally Enforceable Through Title V Permit

115. The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11] Federally Enforceable Through Title V Permit

116. A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12] Federally Enforceable Through Title V Permit

117. Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13] Federally Enforceable Through Title V Permit

118. District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14] Federally Enforceable Through Title V Permit

119. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4409, 5.3.1] Federally Enforceable Through Title V Permit

120. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

121. The operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit

122. For each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5] Federally Enforceable Through Title V Permit

123. If a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6] Federally Enforceable Through Title V Permit

124. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options 1a through 1f require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: 1a) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; 1b) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; 1e) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7] Federally Enforceable Through Title V Permit

125. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1] Federally Enforceable Through Title V Permit

126. The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2] Federally Enforceable Through Title V Permit

127. By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

128. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1] Federally Enforceable Through Title V Permit

129. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2] Federally Enforceable Through Title V Permit

130. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3] Federally Enforceable Through Title V Permit

131. All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rules 1070 and 2520, 9.4] Federally Enforceable Through Title V Permit

132. All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rule 4409, 6.3.1] Federally Enforceable Through Title V Permit

133. The VOC content by weight percent shall be determined using ASTM D-1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4409, 6.3.2] Federally Enforceable Through Title V Permit

134. The percent by volume liquid evaporated at 302 øF (150 øC) shall be determined using ASTM D-86. [District Rule 4409, 6.3.3] Federally Enforceable Through Title V Permit

135. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D-323, and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures specified in Appendix A of District Rule 4409. [District Rule 4409, 6.3.4] Federally Enforceable Through Title V Permit

136. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM D-287 or ASTM 1298. Sampling for API gravity shall be performed in accordance with ASTM D-4057. [District Rule 4409, 6.3.5] Federally Enforceable Through Title V Permit

137. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4409, 6.3.6] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

138. Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7] Federally Enforceable Through Title V Permit

139. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin April 30 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-249-1 **EXPIRATION DATE:** 10/31/2021

**SECTION:** SE 14 **TOWNSHIP:** 30S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**
2000 GALLON HORIZONTAL DRAIN TANK EQUIPPED WITH A PRESSURE/VACUUM DEVICE TO BE USED BY AN OPEN DRAIN SYSTEM

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
4. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive VOC emissions shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Monthly average daily throughput shall not exceed 285 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall conduct TVP and API gravity testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
9. TVP of an organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D323-94 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedure listed in Appendix B of Rule 4623. Should the permittee determine that another method is more appropriate for TVP testing, the methodology must be approved by the District and US EPA prior to its use. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. Should the permittee determine that another method is more appropriate for TVP testing, the methodology must be approved by the District and US EPA prior to its use. [District Rule 4623] Federally Enforceable Through Title V Permit
11. TVP and API gravity test records shall be submitted to the District within 45 days after the date of testing. The record shall include the tank identification number, permit number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
12. The permittee shall keep accurate records of each organic liquid stored in the tank, including its throughput, storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
13. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-247-3 **EXPIRATION DATE:** 10/31/2021

**SECTION:** SE 14 **TOWNSHIP:** 30S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**
68 MMBTU/HR VERTICALLY ORIENTED PROCESS HEATER (HOT OIL HEATER) EQUIPPED WITH COEN RMB ULTRA LOW NOX BURNER

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. Hot oil heater shall only be fired on natural gas with a sulfur content not exceeding 1.0 gr S/100scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.0085 lb-NOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0054 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Permittee shall measure sulfur content of gas used as fuel in heater at least once every year. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 2201, 4320, and 4801] Federally Enforceable Through Title V Permit
13. Permittee shall determine sulfur content of gas combusted in heater using ASTM method D3246 or double GC for H2S and mercaptans. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
16. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
17. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
22. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
24. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-246-2 **EXPIRATION DATE:** 10/31/2021

**SECTION:** SE 14 **TOWNSHIP:** 30S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**
ELECTRICALLY HEATED GLYCOL DEHYDRATION UNIT WITH VAPORS FROM FLASH VESSEL AND STILL VENT ROUTED TO PROCESS SYSTEM INCLUDING OTHER MISCELLANEOUS EQUIPMENT SUCH AS FILTERS, HEAT EXCHANGERS, PUMPS AND VESSELS

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
4. This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas service shall not exceed 6.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of the non-condensable vapors shall not exceed 23% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall test VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
12. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-245-2 **EXPIRATION DATE:** 10/31/2021

**SECTION:** SE 14 **TOWNSHIP:** 30S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**
AMINE TREATING SYSTEM WITH AMINE CONTACTOR; AMINE REGENERATION SYSTEM WITH RE-BOILER HEATED BY HOT OIL SYSTEM; WITH FLASH VESSEL AND AMINE REGENERATION OVERHEAD VAPORS ROUTED TO PROCESS SYSTEM INCLUDING OTHER MISCELLANEOUS EQUIPMENT SUCH AS FILTERS, HEAT EXCHANGERS, PUMPS AND VESSELS

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
4. This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas service shall not exceed 7.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of the non-condensable vapors shall not exceed 23% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall test VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
12. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-235-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** NW35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
250 MMSCF/DAY SMOKELESS FLARE WITH FLARE HEADER AND FLARE KNOCKOUT DRUM

## PERMIT UNIT REQUIREMENTS

1. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of vent gas combusted in the flare shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
2. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of pilot gas combusted shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
4. This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions from the components in gas service shall not exceed 1.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of gas processed shall not exceed 16% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall test and maintain records of VOC content of gas processed no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Flare shall not operate with visible emissions darker than 5% opacity or 1/4 Ringelmann for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
12. A flame shall be present at all times when combustible gases are vented through this flare. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Flare shall be equipped with continuous pilot light or automatic re-ignition provisions. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Sulfur compound concentration of gas combusted shall not exceed 1.0 gr S/100 scf (16.9 ppmv H2S). [District Rule 2201] Federally Enforceable Through Title V Permit
15. Only natural gas with a sulfur content not exceeding 1.0 gr S/100scf shall be used as pilot fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Vent gas emission rates from this unit shall not exceed any of the following limits: NOx - 0.068 lb/MMBtu; VOC - 0.063 lb/MMBtu; CO - 0.37 lb/MMBtu; PM10 - 0.008 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Pilot emission rates from this unit shall not exceed any of the following limits: NOx - 0.094 lb/MMBtu; VOC - 0.0055 lb/MMBtu; CO - 0.04 lb/MMBtu; PM10 - 0.0076 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 41,238 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 371,025 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 2,802.2 lb-NOx; 117.5 lb-SOx; 329.9 lb-PM10; 15,258.1 lb-CO; 2,642.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 25,231 lb-NOx; 1,057 lb-SOx; 2,968 lb-PM10; 137,279 lb-CO; 23,375 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 150 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 58,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 14.1 lb-NOx; 0.4 lb-SOx; 1.1 lb-PM10; 6.0 lb- CO; 0.8 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 5,452 lb-NOx; 165 lb-SOx; 441 lb-PM10; 2,320 lb-CO; 319 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit
27. Permittee shall measure sulfur content of gas incinerated in flare within 60 days of startup and at least once every year thereafter. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
28. Permittee shall determine sulfur content of gas flared using ASTM method D3246 or double GC for H2S and mercaptans. [District Rule 2201] Federally Enforceable Through Title V Permit
29. The higher heating value of the flared gas shall be monitored at least quarterly. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
30. Permittee shall keep accurate records of daily and annual quantity of gas combusted. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201] Federally Enforceable Through Title V Permit
32. When combustible gases are vented to the flare, flare shall be equipped with a heat sensing device to detect the presence of a propane or natural gas pilot flame which is burning at all times. [District Rule 4311]
33. Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK and District Rule 4409] Federally Enforceable Through Title V Permit
34. Permittee shall keep accurate daily records of flare vent gas and pilot gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201]
35. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-215-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,680 BHP NATURAL GAS-FIRED WAUKESHA MODEL L7044GSI IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (K-4) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
4. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The permittee shall install and operate a nonresettable elapsed operating time meter. The time meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
7. The permittee shall install and operate a nonresettable fuel flow meter. The fuel meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
8. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
9. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.012 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
11. VOC fugitive emissions from the components in gas service associated with the compressor shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall maintain accurate component count for compressor according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The fuel consumption for this engine shall not exceed 114.2 MMscf per calendar year. Compliance with this limit may be shown by a record of the annul fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
15. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
16. If the engine is fired on any fuel gas other than PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, D4084, Double GC for H2S and mercaptans, or alternative test method with prior written approval from the APCO. [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the engine is fired on any fuel gas other than PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this engine shall be conducted not less than once every 12 months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
19. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
21. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; VOC - EPA Method 18, 25A, 25B, or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
23. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit
25. This engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications and the Rule 4702 Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit
26. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

27. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1 and 5.6.9] Federally Enforceable Through Title V Permit

28. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 5.6.1] Federally Enforceable Through Title V Permit

29. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.1 and 5.6.9] Federally Enforceable Through Title V Permit

30. The permittee shall maintain records of: (1) the date and time of NOx CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

31. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070]

32. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

34. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 1070, 2201 and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-214-8 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 29 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-42) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
13. The permittee shall install and operate a nonresettable fuel flow meter. The fuel meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
16. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.012 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
17. VOC fugitive emissions from the components in gas service associated with the compressor shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain accurate component count for compressor according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The fuel consumption for this engine shall not exceed 114.2 MMscf per calendar year. Compliance with this limit may be shown by a record of the annul fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
21. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
22. If the engine is fired on any fuel gas other than PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, D4084, Double GC for H2S and mercaptans, or alternative test method with prior written approval from the APCO. [District Rule 2201] Federally Enforceable Through Title V Permit
23. If the engine is fired on any fuel gas other than PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this engine shall be conducted not less than once every 12 months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
25. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

30. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

31. This engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications and the Rule 4702 Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

33. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

34. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

35. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

36. The permittee shall maintain records of: (1) the date and time of NOx CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

37. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070]

38. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

40. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 1070, 2201 and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

41. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

42. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

43. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

44. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

45. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

46. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-213-2 **EXPIRATION DATE:** 10/31/2021

**SECTION:** SE14 **TOWNSHIP:** 30S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**
WET GAS COMPRESSOR 14Z STATION INCLUDING THE FOLLOWING PROCESS SYSTEMS INCLUDING A GAS INLET/CHILLER, GLYCOL DEHYDRATION SYSTEM AND JOULE-THOMPSON UNIT:

## PERMIT UNIT REQUIREMENTS

1. 14Z Station Gas Inlet/Chiller System shall consist of inlet cooler, inlet separator, gas chiller, refrigerant reclaimer, refrigerant subcooler, refrigerant economizer, refrigerant suction scrubber, refrigerant accumulator, refrigerant condenser, refrigerant compressors (S-2234-200, -201, -202 and -203), oil separator, pumps and filters, pump down compressor, lube oil storage tank, lube oil pump, emergency vent stacks, propane loading station and drain tank. [District Rule 2201] Federally Enforceable Through Title V Permit
2. 14Z Glycol Dehydration System shall consist of glycol dehydration skid mounted unit with a glycol contactor, a separator coalescer, several glycol heat exchangers, a reboiler/regenerator equipped with 4.7 MMBtu/hr burner, a glycol surge tank, a flash separator, a lean/rich glycol exchanger, and various pumps and filters, with process vent connected to existing vacuum gas gathering system (S-2234-194) and Jatco BTEX System with condenser. [District Rule 2201] Federally Enforceable Through Title V Permit
3. 14Z Joule-Thomson Unit shall consist of gas/gas exchangers, gas/liquid exchanger and cold separator. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC fugitive emissions shall not exceed 4.22 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit
9. Only glycol shall be used as the dehydration medium. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Condensate handling shall be conducted in closed systems resulting in fugitive component emissions only. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. VOC control efficiency shall be no less than 95% by weight. [District Rule 4408] Federally Enforceable Through Title V Permit
12. Permittee shall maintain daily and monthly records of gas dehydrated and records including those listed in Rule 4408 Section 6.1.2. The permittee shall make such records readily available for District inspection upon request and shall be retained on the premises for a period of not less than five years. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
13. Permittee shall maintain records of component leak inspections and repairs in accordance with Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit
14. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-212-8 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-47) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
13. The permittee shall install and operate a nonresettable fuel flow meter. The fuel meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
16. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.012 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
17. VOC fugitive emissions from the components in gas service associated with the compressor shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain accurate component count for compressor according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The fuel consumption for this engine shall not exceed 114.2 MMscf per calendar year. Compliance with this limit may be shown by a record of the annul fuel usage. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
21. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
22. If the engine is fired on any fuel gas other than PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, D4084, Double GC for H2S and mercaptans, or alternative test method with prior written approval from the APCO. [District Rule 2201] Federally Enforceable Through Title V Permit
23. If the engine is fired on any fuel gas other than PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this engine shall be conducted not less than once every 12 months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
25. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

30. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

31. This engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications and the Rule 4702 Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

33. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

34. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

35. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

36. The permittee shall maintain records of: (1) the date and time of NOx CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

37. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070]

38. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

40. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 1070, 2201 and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

41. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

42. The operator shall establish an O2 sensor output voltage range that indicates that the control device(s) on this engine are operating properly at all times. [40 CFR 64] Federally Enforceable Through Title V Permit

43. Permittee shall ensure proper operation of catalyst system by maintaining O2 sensor voltage between 0.5 millivolts and 1.1 millivolts. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

44. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

45. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

46. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-211-7 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 28 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-6) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
13. The permittee shall install and operate a nonresettable fuel flow meter. The fuel meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
16. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.012 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
17. VOC fugitive emissions from the components in gas service associated with the compressor shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain accurate component count for compressor according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The fuel consumption for this engine shall not exceed 241,600 scf/day. Compliance with this limit may be shown by dividing the quantity of fuel used during a calendar month over the number of days operated during that month. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
21. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
22. If the engine is fired on any fuel gas other than PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, D4084, Double GC for H2S and mercaptans, or alternative test method with prior written approval from the APCO. [District Rule 2201] Federally Enforceable Through Title V Permit
23. If the engine is fired on any fuel gas other than PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this engine shall be conducted not less than once every 12 months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
25. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

30. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

31. This engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications and the Rule 4702 Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

33. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

34. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

35. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

36. The permittee shall maintain records of: (1) the date and time of NOx CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

37. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070]

38. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

40. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 1070, 2201 and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

INSPECTION WORKSHEET

**EXPIRATION DATE:** 10/31/2021

**LEGAL OWNER OR OPERATOR:** CALIFORNIA RESOURCES ELK HILLS LLC
**MAILING ADDRESS:** 900 OLD RIVER RD
BAKERSFIELD, CA 93311

**LOCATION:** GAS PLANT
SECTION SE-35, T-30S, R-23E
TUPMAN, CA

**SECTION:** 27 **TOWNSHIP:** 30S **RANGE:** 23E

**INSPECT PROGRAM PARTICIPANT:** YES

**EQUIPMENT DESCRIPTION:**
1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-3) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234

# CONDITIONS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6]
10. IC engine shall be equipped with air/fuel ratio controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
13. The permittee shall install and operate a nonresettable fuel flow meter. The fuel meter shall be properly maintained in accordance with the manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
14. This IC engine shall only be fired on Public Utility Commission (PUC) quality natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit

INSPECTION WORKSHEET

15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
16. Emissions from this IC engine shall not exceed any of the following limits: NOx (as NO2) - 5 ppmv @ 15% O2, VOC - 25 ppmv @ 15% O2, CO - 56 ppmv @ 15% O2, PM10 - 0.02 g/hp-hr, or SOx (as SO2) - 0.012 g/hp-hr. [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
17. VOC fugitive emissions from the components in gas service associated with the compressor shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain accurate component count for compressor according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The fuel consumption for this engine shall not exceed 241,600 scf/day. Compliance with this limit may be shown by dividing the quantity of fuel used during a calendar month over the number of days operated during that month. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
21. If the IC engine is fired on PUC-regulated natural gas, the permittee shall retain on file, copies of all natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
22. If the engine is fired on any fuel gas other than PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, D4084, Double GC for H2S and mercaptans, or alternative test method with prior written approval from the APCO. [District Rule 2201] Federally Enforceable Through Title V Permit
23. If the engine is fired on any fuel gas other than PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this engine shall be conducted not less than once every 12 months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
25. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A, 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the VOC test. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702, 6.4] Federally Enforceable Through Title V Permit
28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. NOx, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
29. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

INSPECTION WORKSHEET

30. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1080] Federally Enforceable Through Title V Permit

31. This engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications and the Rule 4702 Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702, 6.5] Federally Enforceable Through Title V Permit

32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

33. The permittee shall monitor and record the stack concentration of NOx, CO, and O2, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

34. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit

35. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.1 and 5.6.9] Federally Enforceable Through Title V Permit

36. The permittee shall maintain records of: (1) the date and time of NOx CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

37. The results of the measurements taken with the District approved analyzer shall be retained on-site at all times. [District Rule 1070]

38. This operation shall comply with the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

39. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type, quantity (cubic feet of gas) and sulfur content of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit

INSPECTION WORKSHEET

40. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 1070, 2201 and 4702, 6.2.1 and 6.2.2] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-206-4 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 2 **TOWNSHIP:** 31S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
762 BHP CATERPILLAR MODEL C15 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
4. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, 17 CCR 93115, 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
5. Emissions from this IC engine shall not exceed any of the following limits: 4.5 g-NOx/bhp-hr, 2.6 g-CO/bhp-hr, or 0.3 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
6. Emissions from this IC engine shall not exceed 0.15 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
7. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702, 17 CCR 93115 and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
9. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
10. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
12. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
13. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-205-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 34 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #2 PLANT

## PERMIT UNIT REQUIREMENTS

1. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of vent gas combusted in the flare shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
2. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of pilot gas combusted shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
3. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
6. The flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
7. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present, shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
8. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
9. Vent gas emission rates from this unit shall not exceed any of the following limits: NOx - 0.068 lb/MMBtu; VOC - 0.063 lb/MMBtu; CO - 0.37 lb/MMBtu; PM10 - 0.008 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Pilot emission rates from this unit shall not exceed any of the following limits: NOx - 0.094 lb/MMBtu; VOC - 0.0055 lb/MMBtu; CO - 0.04 lb/MMBtu; PM10 - 0.0076 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 41,238 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 371,025 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 2,802.2 lb-NOx; 117.5 lb-SOx; 329.9 lb-PM10; 15,258.1 lb-CO; 2,642.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 25,231 lb-NOx; 1,057 lb-SOx; 2,968 lb-PM10; 137,279 lb-CO; 23,375 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 150 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 58,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 14.1 lb-NOx; 0.4 lb-SOx; 1.1 lb-PM10; 6.0 lb- CO; 0.8 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 5,452 lb-NOx; 165 lb-SOx; 441 lb-PM10; 2,320 lb-CO; 319 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

20. Operators subject to vent gas composition monitoring requirements shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA: Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

21. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

22. Vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 6.3.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The operator shall monitor vent gas composition using one of the following five methods as appropriate. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis. 1) Sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours. (b) Samples shall be analyzed using approved test methods; or 2) Integrated sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less. (b) Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample container is full. If sampling is still required pursuant to part (a), a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours. (c) Samples shall be analyzed using approved test methods; or 3) Continuous analyzers that meet the following requirements: (a) The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur. (b) The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon. (c) Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale; or 4). Continuous analyzers employing gas chromatography that meet the following requirements: (a) The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide. (b) The gas chromatography system shall be maintained to be accurate within 5% of full scale; or 5) Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested using approved test methods. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

24. Permittee shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit

25. The operator of a flare with a water seal shall monitor and record the water level and pressure of the water seal daily or as specified on the Permit to Operate. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit

26. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

27. During periods of inoperation of continuous analyzers or auto-samplers, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

28. Permittee shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

29. Permittee shall keep accurate daily records of flare vent gas and pilot gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201]

30. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. Permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-204-5 **EXPIRATION DATE:** 10/31/2021

**SECTION:** 35 **TOWNSHIP:** 30S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**
7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #1 PLANT

## PERMIT UNIT REQUIREMENTS

1. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of vent gas combusted in the flare shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
2. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of pilot gas combusted shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
3. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
6. The flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
7. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present, shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
8. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
9. Vent gas emission rates from this unit shall not exceed any of the following limits: NOx - 0.068 lb/MMBtu; VOC - 0.063 lb/MMBtu; CO - 0.37 lb/MMBtu; PM10 - 0.008 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Pilot emission rates from this unit shall not exceed any of the following limits: NOx - 0.094 lb/MMBtu; VOC - 0.0055 lb/MMBtu; CO - 0.04 lb/MMBtu; PM10 - 0.0076 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 41,238 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 371,025 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 2,802.2 lb-NOx; 117.5 lb-SOx; 329.9 lb-PM10; 15,258.1 lb-CO; 2,642.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 25,231 lb-NOx; 1,057 lb-SOx; 2,968 lb-PM10; 137,279 lb-CO; 23,375 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 150 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed 58,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 14.1 lb-NOx; 0.4 lb-SOx; 1.1 lb-PM10; 6.0 lb- CO; 0.8 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, - 235, and '-250 shall not exceed any of the following: 5,452 lb-NOx; 165 lb-SOx; 441 lb-PM10; 2,320 lb-CO; 319 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

20. Operators subject to vent gas composition monitoring requirements shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA: Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

21. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit

22. Vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 6.3.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The operator shall monitor vent gas composition using one of the following five methods as appropriate. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis. 1) Sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours. (b) Samples shall be analyzed using approved test methods; or 2) Integrated sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less. (b) Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample container is full. If sampling is still required pursuant to part (a), a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours. (c) Samples shall be analyzed using approved test methods; or 3) Continuous analyzers that meet the following requirements: (a) The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur. (b) The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon. (c) Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale; or 4). Continuous analyzers employing gas chromatography that meet the following requirements: (a) The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide. (b) The gas chromatography system shall be maintained to be accurate within 5% of full scale; or 5) Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested using approved test methods. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

24. Permittee shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit

25. The operator of a flare with a water seal shall monitor and record the water level and pressure of the water seal daily or as specified on the Permit to Operate. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit

26. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

27. During periods of inoperation of continuous analyzers or auto-samplers, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

28. Permittee shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

29. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

30. Permittee shall keep accurate daily records of flare vent gas and pilot gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. The permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-203-4 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-56) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-202-4 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-55) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# *San Joaquin Valley*
# *Air Pollution Control District*

**PERMIT UNIT:** S-2234-201-4 **EXPIRATION DATE:** 10/31/2021

**EQUIPMENT DESCRIPTION:**
ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-107) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. Operator shall notify the District by letter or fax at least 48-hours in advance of the re-location of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operator shall maintain records of compressor skid location and dates spent at each location and make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This unit shall not operate within 1,000 feet of a kindergarten through 12 grade school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
4. Compressor skid shall only be used in conjunction with gas processing operations. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c (Feb 1999), with no leaks greater than or equal to 10,000 ppm, shall not exceed 0.7 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall comply with all of the requirements of District Rule 4409, as specified on facility wide permit S-2234-0. [District Rule 4409] Federally Enforceable Through Title V Permit

# ATTACHMENT C

## Detailed Summary List of Facility Permits

# Detailed Facility Report

For Facility=2234
Sorted by Facility Name and Permit Number



**CALIFORNIA RESOURCES ELK HILLS LLC**
**GAS PLANT**
**SECTION SE-35, T-30S, R-23E**
**TUPMAN, CA**

FAC # **S 2234**
STATUS: **A**
TELEPHONE:

TYPE: **TitleV**
TOXIC ID: **50177**

EXPIRE ON: 10/31/2021
AREA: 104 /
INSP. DATE: 10/22

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-1-20 | 55 MM BTU/HR | 3020-02 H | 1 | 1,238.00 | 1,238.00 | A | LOW TEMPERATURE SEPARATION PLANT #2 INCLUDING PROCESS PUMPS, HEAT EXCHANGER(S)/COOLER(S), COOLING TOWER, FUEL GAS/LIQUID K.O. VESSEL(S) VENTED TO FLARE, AND DE-ETHANIZER, DE-BUTANIZER, DE-PROPANIZER COLUMNS VENTED TO FLARE, AND INLET HEAT EXCHANGER |
| S-2234-3-21 | 55 MM BTU/HR | 3020-02 H | 1 | 1,238.00 | 1,238.00 | A | LOW TEMPERATURE SEPARATION PLANT #1 INCLUDING FREE WATER KNOCKOUT(S), ACCUMULATOR(S), CHILLER(S), LOW TEMPERATURE SEPARATOR(S), DE-ETHANIZER & REBOILER, DE-BUTANIZER & REBOILER, DE-PROPANIZER & REBOILER, AND INLET HEAT EXCHANGER: |
| S-2234-4-13 | 30 hp loading rack | 3020-01 B | 1 | 143.00 | 143.00 | A | NATURAL GASOLINE, BUTANE, AND PROPANE LOADING RACK CONSISTING OF 7 LOADING ISLANDS, 7 LOADING STATIONS, 14 HOSES, 14 VAPOR RETURN LINES AND A VAPOR RECOVERY SYSTEM |
| S-2234-5-1 | 58,800 GALLONS | 3020-05 D | 1 | 223.00 | 223.00 | D | 58,800 GASOLINE STORAGE TANK V202 UNX #11747 (NATURAL GASOLINE STORAGE/LOADOUT #1) INCLUDING LOADING RACK WITH VAPOR RECOVERY SHARED WITH S-2234-34, 35 & 36 |
| S-2234-6-2 | 1000 HP | 3020-10 F | 1 | 900.00 | 900.00 | D | 1000 BHP NATURAL GAS FIRED I.C. ENGINE #R-6 ALSO APPROVED AT SECTION 7, 17, 30, T30S, R23E (PTO DELETED FOR ERC CERT. S 0269-1 - 5, PROJECT 940343 BY RWK ON 9/21/94) |
| S-2234-7-3 | > 15 MBTU/HR | 3020-02 H | 1 | 1,238.00 | 1,238.00 | D | 7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #2 PLANT |
| S-2234-8-6 | 104.6 MM BTU/HR | 3020-02 H | 1 | 1,238.00 | 1,238.00 | A | 104.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #2 PLANT |
| S-2234-9-16 | 5,500 BHP IC ENGINE | 3020-10 G | 1 | 1,083.00 | 1,083.00 | A | 5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-40 UNX #16652) |
| S-2234-10-16 | 5,500 BHP IC ENGINE | 3020-10 G | 1 | 1,083.00 | 1,083.00 | A | 5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-41 UNX #16651) |
| S-2234-11-16 | 5,500 BHP IC ENGINE | 3020-10 G | 1 | 1,083.00 | 1,083.00 | A | 5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-42 UNX #16650) |
| S-2234-12-13 | 2000 HP | 3020-10 F | 1 | 900.00 | 900.00 | A | 2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-43 UNX #13694) |
| S-2234-13-3 | > 15 MBTU/HR | 3020-02 H | 1 | 1,238.00 | 1,238.00 | D | 7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #1 PLANT |
| S-2234-14-6 | 105.6 MM BTU/HR | 3020-02 H | 1 | 1,238.00 | 1,238.00 | A | 105.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #1 PLANT |

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-15-14 | 5,500 BHP IC ENGINE | 3020-10 G | 1 | 1,083.00 | 1,083.00 | A | 5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-36 UNX #13675) |
| S-2234-16-14 | 5,500 BHP IC ENGINE | 3020-10 G | 1 | 1,083.00 | 1,083.00 | A | 5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-37 UNX #13674) |
| S-2234-17-14 | 5,500 BHP IC ENGINE | 3020-10 G | 1 | 1,083.00 | 1,083.00 | A | 5,500 BHP INGERSOLL-RAND MODEL 616KVR LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-38 UNX #13673) |
| S-2234-18-13 | 2000 HP | 3020-10 F | 1 | 900.00 | 900.00 | A | 2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-39 UNX #13672) |
| S-2234-19-13 | 63.1 MMBtu/hr | 3020-02 H | 1 | 1,238.00 | 1,238.00 | D | 35R GAS PLANT WITH LEAN OIL RECLAIMING STILL, FOUR AIR COMPRESSORS, ABSORBER, RICH OIL RECTIFIER, STRIPPER, DE-ETHANIZER AND DE-PROPANIZER |
| S-2234-20-5 | 880 HP | 3020-10 E | 1 | 723.00 | 723.00 | D | 880 BHP CLARK LPG/PUC QUALITY NATURAL GAS FIRED I.C. ENGINE K-1 UNX #9071 * CANCELLED PER SITE LETTER OF 6/1/99; JRS, 6/8/99 * |
| S-2234-21-6 | 880 HP | 3020-10 E | 1 | 723.00 | 723.00 | D | 880 BHP CLARK LPG/PUC QUALITY NATURAL GAS FIRED I.C. ENGINE K-2 UNX #9066 * CANCELLED PER SITE LETTER OF 6/1/99; JRS, 6/8/99 * |
| S-2234-22-4 | 880 HP | 3020-10 E | 1 | 723.00 | 723.00 | D | 880 BHP CLARK LPG/PUC QUALITY NATURAL GAS FIRED I.C. ENGINE K-3 UNX #9149 * CANCELLED PER SITE LETTER OF 6/1/99; JRS, 6/8/99 * |
| S-2234-23-4 | 880 HP | 3020-10 E | 1 | 723.00 | 723.00 | D | 880 BHP CLARK LPG/PUC QUALITY NATURAL GAS FIRED I.C. ENGINE K-4 UNX #9154 * CANCELLED PER SITE LETTER OF 6/1/99; JRS, 6/8/99 * |
| S-2234-24-4 | 880 HP | 3020-10 E | 1 | 723.00 | 723.00 | D | 880 BHP CLARK LPG/PUC QUALITY NATURAL GAS FIRED I.C. ENGINE K-5 UNX #9159 * CANCELLED PER SITE LETTER OF 6/1/99; JRS, 6/8/99 * |
| S-2234-25-4 | 880 HP | 3020-10 E | 1 | 723.00 | 723.00 | D | 880 BHP CLARK LPG/PUC QUALITY NATURAL GAS FIRED I.C. ENGINE K-6 UNX #9164 * CANCELLED PER SITE LETTER OF 6/1/99; JRS, 6/8/99 * |
| S-2234-26-4 | 880 HP | 3020-10 E | 1 | 723.00 | 723.00 | D | 880 BHP CLARK LPG/PUC QUALITY NATURAL GAS FIRED I.C. ENGINE K-7 UNX #9169 * CANCELLED PER SITE LETTER OF 6/1/99; JRS, 6/8/99 * |
| S-2234-27-7 | 4,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | D | 4,000 BHP DELAVAL MODEL HVA12 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-9 UNX #11726) |
| S-2234-28-8 | 4,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | D | 4,000 BHP DELAVAL MODEL HVA12 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-10 UNX #11718) |
| S-2234-29-21 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042GSI RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER, ENLARGED TURBOCHARGER NOZZLE RING, AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-11 UNX #13198) |

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-30-19 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER, ENLARGED TURBOCHARGER NOZZLE RING, AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-12 UNX #12493) |
| S-2234-31-21 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042GSI RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER, ENLARGED TURBOCHARGER NOZZLE RING, AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-13 UNX #13409) |
| S-2234-32-2 | 55.65 MM BTU/HR | 3020-02 H | 1 | 1,238.00 | 1,238.00 | D | 55.65 MMBTU/HR NATURAL GAS FIRED BOILER #F204 SERVING 35R GAS PLANT |
| S-2234-33-2 | 55.65 MM BTU/HR | 3020-02 H | 1 | 1,238.00 | 1,238.00 | D | 55.65 MMBTU/HR NATURAL GAS FIRED BOILER #F205 SERVING 35R GAS PLANT |
| S-2234-34-1 | 58,800 GALLONS | 3020-05 D | 1 | 223.00 | 223.00 | D | 58,800 GALLON GASOLINE STORAGE TANK, V201, UNX #11746 (NATURAL GASOLINE STORAGE/LOADOUT #1) INCLUDING SHARED LOADING RACK WITH VAPOR RECOVERY LISTED ON PERMIT S-2234-5 |
| S-2234-35-1 | 58,800 GALLONS | 3020-05 D | 1 | 223.00 | 223.00 | D | 58,800 GALLON GASOLINE STORAGE TANK, V102, UNX #9031 (NATURAL GASOLINE STORAGE/LOADOUT #1) INCLUDING SHARED LOADING RACK WITH VAPOR RECOVERY LISTED ON PERMIT S-2234-5 |
| S-2234-36-1 | 58,800 GALLONS | 3020-05 D | 1 | 223.00 | 223.00 | D | 58,800 GALLON GASOLINE STORAGE TANK, V101, UNX #9030 (NATURAL GASOLINE STORAGE/LOADOUT #1) INCLUDING SHARED LOADING RACK WITH VAPOR RECOVERY LISTED ON PERMIT S-2234-5 |
| S-2234-37-4 | 330 HP | 3020-10 C | 1 | 290.00 | 290.00 | D | 330 BHP CLARK LPG/PUC QUALITY NATURAL GAS FIRED I.C. ENGINE UNX #9076 * CANCELLED PER SITE LETTER OF 6/1/99; JRS, 6/8/99 * |
| S-2234-38-6 | 310 HP | 3020-10 C | 1 | 290.00 | 290.00 | A | 310 BHP CUMMINS DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP (UNX #51392) |
| S-2234-39-4 | 310 HP | 3020-10 C | 1 | 290.00 | 290.00 | D | 310 BHP CUMMINS DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP (UNX #14535) |
| S-2234-40-2 | 188 HP | 3020-10 B | 1 | 143.00 | 143.00 | D | 188 BHP WAUKESHA NATURAL GAS FIRED I.C. ENGINE P37 |
| S-2234-41-0 | 188 HP | 3020-10 B | 1 | 143.00 | 143.00 | D | 188 BHP NATURAL GAS FIRED I.C. ENGINE P38 UNX #14320 (35R GAS PLANT) ***EQUIPMENT REMOVED, PTO SURRENDERED 9/22/94*** JG |
| S-2234-42-2 | 188 HP | 3020-10 B | 1 | 143.00 | 143.00 | D | 188 BHP NATURAL GAS FIRED I.C. ENGINE UNX #15529 |
| S-2234-43-8 | 227 HP | 3020-10 C | 1 | 290.00 | 290.00 | A | 227 BHP CATERPILLAR DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (P4) |
| S-2234-44-5 | 773 HP | 3020-10 D | 1 | 577.00 | 577.00 | D | 773 BHP WAUKESHA NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (UNX #14166) |
| S-2234-45-5 | 310 bhp engine | 3020-10 C | 1 | 290.00 | 290.00 | D | 310 HP CUMMINS DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP (UNX #12052) |
| S-2234-46-11 | 793 HP | 3020-10 D | 1 | 577.00 | 577.00 | A | 793 BHP WAUKESHA NATURAL GAS-FIRED STANDBY IC ENGINE (UNX #13397) |

# Detailed Facility Report

For Facility=2234
Sorted by Facility Name and Permit Number



| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-47-11 | 793 HP | 3020-10 D | 1 | 577.00 | 577.00 | A | 793 BHP WAUKESHA NATURAL GAS-FIRED STANDBY IC ENGINE (UNX #14772) |
| S-2234-48-11 | 490 HP | 3020-10 D | 1 | 577.00 | 577.00 | A | 490 BHP CATERPILLAR MODEL G398 RICH-BURN NATURAL GAS-FIRED IC ENGINE POWERING A GAS COMPRESSOR (K-68 UNX #54313) |
| S-2234-52-13 | 30.5 MW | 3020-08A F | 1 | 9,803.00 | 9,803.00 | A | ONE 24.5 MW NATURAL GAS-FIRED GAS TURBINE COGENERATION SYSTEM, INCLUDING 250 MMBTU/HR GENERAL ELECTRIC MODEL LM-2500 GAS TURBINE, 103 MMBTU/HR DUCT BURNER ASSEMBLY, 150,000 LB/HR HEAT RECOVERY STEAM GENERATOR, AND 6 MW STEAM TURBINE SERVING S-2234-52 AND S-2234-53 |
| S-2234-53-10 | 24.5 MW | 3020-08A F | 1 | 9,803.00 | 9,803.00 | A | ONE 24.5 MW NATURAL GAS-FIRED GAS TURBINE COGENERATION SYSTEM, INCLUDING 250 MMBTU/HR GENERAL ELECTRIC MODEL LM-2500 GAS TURBINE, 103 MMBTU/HR DUCT BURNER ASSEMBLY, AND 150,000 LB/HR HEAT RECOVERY STEAM GENERATOR |
| S-2234-56-0 | 1,000 BRAKE HP | 3020-10 F | 1 | 900.00 | 900.00 | D | 1,000 BHP NATURAL GAS FIRED I.C. ENGINE (2-35R) (PTO DELETED FOR ERC CERTIFICATES S-0269-1 THROUGH 5, PROJECT 940343, BY RWK ON 9/21/94) |
| S-2234-57-19 | 1,000 BRAKE HP | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP NATURAL GAS FIRED WAUKESHA MODEL L7042 RICH BURN I.C. ENGINE WITH TURBOCHARGER, ENLARGED NOZZLE RING, AIR/FUEL RATIO CONTROL UNIT, AND A NONSELECTIVE THREE WAY CATALYTIC REDUCTION (NSCR) SYSTEM (K-53 UNX #13444) |
| S-2234-58-21 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-49 UNX# 51286) |
| S-2234-59-20 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042-GSI RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-29 UNX# 13207) |
| S-2234-60-15 | 650 BRAKE HP | 3020-10 D | 1 | 577.00 | 577.00 | A | 650 BHP WAUKESHA MODEL L7042-GU RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-54 UNX# 12877) |
| S-2234-61-19 | 1,000 BHP | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042GSI RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-52 UNX# 15676) |
| S-2234-62-13 | 2,000 HP | 3020-10 F | 1 | 900.00 | 900.00 | A | 2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-44 UNX# 13701) |
| S-2234-63-19 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-48 UNX# 13435) |
| S-2234-64-17 | 650 BRAKE HP | 3020-10 D | 1 | 577.00 | 577.00 | A | 650 BHP WAUKESHA MODEL L7042-GU RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-26 UNX# 11554) |

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-65-17 | 650 BRAKE HP | 3020-10 D | 1 | 577.00 | 577.00 | A | 650 BHP WAUKESHA MODEL L7042-GU RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-27 UNX #12705) |
| S-2234-66-17 | 650 BRAKE HP | 3020-10 D | 1 | 577.00 | 577.00 | A | 650 BHP WAUKESHA MODEL L7042-GU RICH-BURN NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-28 UNX# 12850) |
| S-2234-67-19 | 1,000 BHP | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-30 UNX# 13426) |
| S-2234-68-19 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-31 UNX# 11553) |
| S-2234-69-19 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-32 UNX# 18028) |
| S-2234-70-22 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-33 UNX# 16453) |
| S-2234-71-22 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-34 UNX# 13417) |
| S-2234-72-19 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-35 UNX# 54626) |
| S-2234-73-19 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-51 UNX# 13793) |
| S-2234-74-19 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042-GSIU RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-50 UNX# 13401) |
| S-2234-75-15 | 2,000 BHP | 3020-10 F | 1 | 900.00 | 900.00 | A | 2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-45 UNX# 13706) |
| S-2234-76-13 | 2,000 BHP | 3020-10 F | 1 | 900.00 | 900.00 | A | 2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-46 UNX# 13715) |
| S-2234-77-14 | 2,000 BHP | 3020-10 F | 1 | 900.00 | 900.00 | A | 2,000 BHP INGERSOLL-RAND MODEL 412KVS LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-COMBUSTION CHAMBER POWERING A GAS COMPRESSOR (K-47 UNX# 13716) |
| S-2234-78-18 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042 RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-58 UNX# 18033) |

# Detailed Facility Report

For Facility=2234
Sorted by Facility Name and Permit Number



| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-79-18 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042 RICH BURN NATURAL GAS FIRED I.C. ENGINE, WITH TURBOCHARGER AND CATALYTIC CONVERTER, POWERING A GAS COMPRESSOR (K-57 UNX# 18017) |
| S-2234-80-12 | 1,000 BHP | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042GL LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-STRATIFIED COMBUSTION SYSTEM POWERING A GAS COMPRESSOR (K-59 UNX# 53881) |
| S-2234-81-12 | 1,000 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,000 BHP WAUKESHA MODEL L7042GL LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-STRATIFIED COMBUSTION SYSTEM POWERING A GAS COMPRESSOR (K-60) |
| S-2234-82-16 | 1,500 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,500 BHP WAUKESHA MODEL L7042 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-STRATIFIED COMBUSTION SYSTEM POWERING A GAS COMPRESSOR (K-70 UNX# 54508) |
| S-2234-83-15 | 1,500 BHP IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,500 BHP WAUKESHA MODEL L7042 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH PRE-STRATIFIED COMBUSTION SYSTEM POWERING A GAS COMPRESSOR (K-71 UNX# 54497) |
| S-2234-84-14 | 490 HP | 3020-10 D | 1 | 577.00 | 577.00 | A | 490 BHP CATERPILLAR MODEL G398 RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-67 UNX# 54302) |
| S-2234-85-14 | 490 HP | 3020-10 D | 1 | 577.00 | 577.00 | A | 490 BHP CATERPILLAR MODEL G398 RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-66 UNX# 54299) |
| S-2234-86-13 | 490 HP | 3020-10 D | 1 | 577.00 | 577.00 | A | 490 BHP CATERPILLAR MODEL G398 RICH-BURN NATURAL GAS-FIRED IC ENGINE WITH CATALYTIC CONVERTER POWERING A GAS COMPRESSOR (K-69 UNX# 54318) |
| S-2234-87-7 | 88 HP | 3020-10 A | 1 | 98.00 | 98.00 | D | 88 BHP WAUKESHA NATURAL GAS-FIRED STANDBY IC ENGINE (UNX #15556) |
| S-2234-88-2 | 88 BRAKE HP | 3020-10 A | 1 | 98.00 | 98.00 | D | 88 BHP WAUKESHA NATURAL GAS FIRED I.C. ENGINE UNX# 15570 |
| S-2234-89-3 | 88 BRAKE HP | 3020-10 A | 1 | 98.00 | 98.00 | D | 88 BHP WAUKESHA NATURAL GAS FIRED I.C. ENGINE UNX# 15569 |
| S-2234-90-2 | 88 BRAKE HP | 3020-10 A | 1 | 98.00 | 98.00 | D | 88 BHP WAUKESHA NATURAL GAS FIRED I.C. ENGINE UNX# 15549 * CANCELLED BY APPLICANT LETTER 7/29/97, KCM** |
| S-2234-91-1 | 70 BRAKE HP | 3020-10 A | 1 | 98.00 | 98.00 | D | 70 BHP INTERNAL HARVESTER NATURAL GAS FIRED I.C. ENGINE UNX# 12643 **CANCELLED BY APPLICANT LETTER 7/29/97, KCM** |
| S-2234-92-4 | 88 BRAKE HP | 3020-10 A | 1 | 98.00 | 98.00 | D | 88 BHP WAUKESHA NATURAL GAS FIRED I.C. ENGINE UNX# 13999 |
| S-2234-93-0 | 21000 GALS | 3020-05 C | 1 | 165.00 | 165.00 | D | PRODUCED GAS COMPRESSION SYSTEM INCLUDING NATURAL GAS COMPRESSOR, INLET GAS SCRUBBER, FUEL GAS SCRUBBER, CONDENSATE BLOWCASE, AND 500 BBL CONDENSATE COLLECTION TANK |

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-94-0 | 21000 GALS | 3020-05 C | 1 | 165.00 | 165.00 | D | PRODUCED GAS COMPRESSION SYSTEM INCLUDING NATURAL GAS COMPRESSOR, INLET GAS SCRUBBER, FUEL GAS SCRUBBER, CONDENSATE BLOWCASE, AND 500 BBL CONDENSATE COLLECTION TANK |
| S-2234-95-0 | MISC COMPRESSION EQUIPMENT | 3020-06 | 1 | 128.00 | 128.00 | D | PRODUCED GAS COMPRESSION SYSTEM INCLUDING TWO NATURAL GAS COMPRESSORS, LOW PRESSURE GAS SCRUBBER V-503, TWO SUCTION SCRUBBERS, TWO INTERCOOLERS, TWO INTERSTAGE KNOCKOUT VESSELS, AND TWO AFTERCOOLERS |
| S-2234-97-4 | 1,250 hp electric compressor | 3020-01 G | 1 | 980.00 | 980.00 | A | 1,250 HP GENERAL ELECTRIC ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-81) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE |
| S-2234-98-5 | 2,250 electric motor horsepower | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | 2,250 HP GENERAL ELECTRIC ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-82) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE |
| S-2234-99-5 | 2,250 electric motor horsepower | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | 2,250 HP GENERAL ELECTRIC ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-83) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE |
| S-2234-100-5 | 300 HP NATURAL GAS COMPRESSOR | 3020-01 E | 1 | 495.00 | 495.00 | A | 300 BHP SIEMENS ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-84) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE S-2234 |
| S-2234-101-5 | 300 HP NATURAL GAS COMPRESSOR | 3020-01 E | 1 | 495.00 | 495.00 | A | 300 BHP SIEMENS ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-85) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE S-2234 |
| S-2234-102-1 | 300 hp electric compressor | 3020-01 E | 1 | 495.00 | 495.00 | D | 300 HP SIEMENS ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-86) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE. |
| S-2234-103-1 | 300 hp electric compressor | 3020-01 E | 1 | 495.00 | 495.00 | D | 300 HP SIEMENS ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-87) AUTHORIZED TO OPERATE WITHIN THE GAS PLANT STATIONARY SOURCE. |
| S-2234-104-5 | 1445 HP DIESEL IC ENGINE | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,445 BHP CATERPILLAR MODEL 3512 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING A 1000KW ELECTRICAL GENERATOR |
| S-2234-107-6 | 2,250 electric motor horsepower | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | 2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-89), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS, 1 OFF SKID GAS COOLER AND FACILITY INLET GAS/LIQUID SEPARATOR |
| S-2234-108-6 | 2,250 electric motor horsepower | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | 2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-90), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS AND 1 OFF SKID GAS COOLER |
| S-2234-109-6 | 2,250 electric motor horsepower | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | 2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-91), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS AND 1 OFF SKID GAS COOLER |

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-110-6 | 2,250 electric motor horsepower | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | 2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-92), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS AND 1 OFF SKID GAS COOLER |
| S-2234-111-6 | 2,250 electric motor horsepower | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | 2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-93), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS AND 1 OFF SKID GAS COOLER |
| S-2234-112-6 | 2,250 electric motor horsepower | 3020-01 H | 1 | 1,238.00 | 1,238.00 | D | 2,250 BHP ELECTRICALLY DRIVEN NATURAL GAS COMPRESSOR (K-94), INCLUDING 2 SKID MOUNTED GAS/LIQUID SEPARATORS AND 1 OFF SKID GAS COOLER |
| S-2234-114-3 | 90,000 gallons | 3020-05 D | 1 | 223.00 | 223.00 | A | 90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12954 |
| S-2234-115-3 | 90,000 gallons | 3020-05 D | 1 | 223.00 | 223.00 | A | 90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12955 |
| S-2234-116-3 | 90,000 gallons | 3020-05 D | 1 | 223.00 | 223.00 | A | 90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12956 |
| S-2234-117-3 | 90,000 gallons | 3020-05 D | 1 | 223.00 | 223.00 | A | 90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12966 |
| S-2234-118-3 | 96,604 gallon storage tank | 3020-05 D | 1 | 223.00 | 223.00 | A | 96,604 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK |
| S-2234-119-3 | 96,604 gallon storage tank | 3020-05 D | 1 | 223.00 | 223.00 | A | 96,604 GALLON NATURAL GASOLINE AND BUTANE STORAGE BULLET TANK |
| S-2234-120-3 | 90,000 gallons | 3020-05 D | 1 | 223.00 | 223.00 | A | 90,000 GALLON NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12950 |
| S-2234-121-3 | 90,000 gallons | 3020-05 D | 1 | 223.00 | 223.00 | A | 90,000 GALLON PRESSURIZED NATURAL GASOLINE AND BUTANE STORAGE TANK #UNX 12953 |
| S-2234-122-4 | 1.5 MMBtu/hr | 3020-02 E | 1 | 495.00 | 495.00 | A | GLYCOL DEHYDRATION SKID MOUNTED UNIT WITH A GLYCOL CONTACTOR, SEPARATOR COALESCER, SEVERAL GLYCOL HEAT EXCHANGERS, REBOILER/REGENERATOR EQUIPPED WITH 1.5 MMBTU/HR BURNER, GLYCOL SURGE TANK, FLASH SEPARATOR, LEAN/RICH GLYCOL EXCHANGER, VARIOUS PUMPS AND FILTERS, WITH PROCESS VENT CONNECTED TO EXISTING VACUUM GAS GATHERING SYSTEM |
| S-2234-123-5 | 1,823 hp | 3020-10 F | 1 | 900.00 | 900.00 | D | 1834 HP NATURAL GAS-FIRED WAUKESHA IC ENGINE MODEL #7042 DRIVING A GAS COMPRESSOR (R-14) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-124-5 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | D | 1834 HP NATURAL GAS-FIRED WAUKESHA IC ENGINE MODEL #7042 DRIVING A GAS COMPRESSOR (R-15) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-125-3 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | D | 1834 HP NATURAL GAS-FIRED WAUKESHA IC ENGINE MODEL #7042 DRIVING A GAS COMPRESSOR (R-18) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-126-9 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-21) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-127-2 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | D | 1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-25) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-128-2 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | D | 1834 HP NATURAL GAS-FIRED WAUKESHA IC ENGINE MODEL #7042 DRIVING A GAS COMPRESSOR (R-26) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-129-9 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (K-149) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-130-8 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (K-150) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-131-10 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR K-153) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-132-10 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (K-154) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-133-4 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | D | 1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-31) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-134-9 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR K-152) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-135-10 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-33) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-136-10 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-34) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-137-9 | 1,834 hp | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,834 BHP WAUKESHA MODEL #7042 NATURAL GAS-FIRED IC ENGINE DRIVING A GAS COMPRESSOR (R-35) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION, AIR/FUEL RATIO CONTROLLER, POSITIVE CRANKCASE VENTILATION, AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-139-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (R-23) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-140-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (R-24) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-141-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-95) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-142-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-103) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-143-5 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-104) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-144-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-105) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-145-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-106) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-147-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-108] AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-150-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-109) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-151-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-110) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-152-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-111) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-153-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-112) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-154-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-113) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-157-3 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-114) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-158-3 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-115) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-159-3 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-116) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-160-3 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-117) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-161-3 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-118) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-162-3 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-119) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-163-3 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-120) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-164-3 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-121) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-165-3 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-122) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |

# Detailed Facility Report

For Facility=2234
Sorted by Facility Name and Permit Number



| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-166-3 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-123) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-167-3 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-124) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-170-5 | 99 bhp IC engine | 3020-01 C | 1 | 239.00 | 239.00 | A | 99 BHP CUMMINS MODEL 4BTA 3.9-G5 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING POTABLE WATER PUMPS |
| S-2234-172-3 | 1.5 MMBtu/hr | 3020-02 E | 1 | 495.00 | 495.00 | A | GLYCOL DEHYDRATION OPERATION INCLUDING 1.5 MMBTU/HR BURNER, A GLYCOL SURGE TANK, FLASH VESSEL AND GLYCOL REBOILER VENT, A LEAN/RICH GLYCOL EXCHANGER, AND VARIOUS PUMPS AND FILTERS WITH PROCESS VENT CONNECTED TO VACUUM GAS GATHERING SYSTEM |
| S-2234-173-4 | 300 hp | 3020-10 C | 1 | 290.00 | 290.00 | A | 300 HP JOHN DEERE MODEL 6081HF070 DIESEL FIRED EMERGENCY IC ENGINE POWERING FIRE WATER PUMPS AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-175-3 | < 100 hp | 3020-01 C | 1 | 239.00 | 239.00 | D | GAS DEHYDRATION SYSTEM INCLUDING: INLET GAS COALESCERS, MOLECULAR SIEVE DRYER BEDS, REGENERATION AND DRY GAS COOLERS, AND ELECTRIC MOTOR REGENERATION GAS COMPRESSOR (35R GAS PLANT) |
| S-2234-176-2 | < 1,600 hp | 3020-01 G | 1 | 980.00 | 980.00 | D | NATURAL GAS CO2 REMOVAL SYSTEM INCLUDING: MOLECULAR SIEVE CO2 REMOVAL BEDS, FIN-FAN GAS COOLERS, NITROGEN DRYING BEDS, LIQUID KNOCKOUT VESSELS AND ELECTRIC MOTOR CO2 REMOVAL COMPRESSORS (35R GAS PLANT) |
| S-2234-178-3 | 19 MMBtu/hr heater | 3020-02 H | 1 | 1,238.00 | 1,238.00 | D | 19 MMBTU/HR MOHAWK PROCESS EQUIPMENT NATURAL GAS-FIRED MOL-SIEVE PROCESS HEATER WITH ZEECO MODEL GLSF BURNER, #F-207 |
| S-2234-179-3 | 7 MMBtu/hr heater | 3020-02 G | 1 | 980.00 | 980.00 | D | 7 MMBTU/HR MOHAWK PROCESS EQUIPMENT NATURAL GAS-FIRED MOL-SIEVE PROCESS HEATER WITH ZEECO MODEL GLSF BURNER, #F-213 |
| S-2234-180-3 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-19) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-181-3 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-20) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-182-5 | 1,680 bHP | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (K-151) |

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-183-5 | 1,680 bHP | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (K-147) |
| S-2234-184-5 | 1,680 bHP | 3020-10 F | 1 | 900.00 | 900.00 | D | 1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (R-38) |
| S-2234-185-5 | 1,680 bHP | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (R-39) |
| S-2234-186-5 | 1,680 bHP | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (R-40) |
| S-2234-187-5 | 1,680 hp | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR AND OPERATES AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 (R-41) |
| S-2234-188-0 | 1,834 bHP | 3020-10 F | 1 | 900.00 | 900.00 | D | 1,834 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR (R-42) |
| S-2234-192-0 | 1,834 bHP | 3020-10 F | 1 | 900.00 | 900.00 | D | 1,834 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR (R-46) |
| S-2234-193-0 | 1,834 bHP | 3020-10 F | 1 | 900.00 | 900.00 | D | 1,834 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH NSCR AND PCV POWERING A COMPRESSOR (R-47) |
| S-2234-194-4 | 4.7 MMBtu/hr | 3020-02 F | 1 | 731.00 | 731.00 | A | GLYCOL DEHYDRATION SKID MOUNTED UNIT WITH A GLYCOL CONTACTOR, A SEPARATOR COALESCER, SEVERAL GLYCOL HEAT EXCHANGERS, A REBOILER/REGENERATOR EQUIPPED WITH 4.7 MMBTU/HR BURNER, A GLYCOL SURGE TANK, A FLASH SEPARATOR, A LEAN/RICH GLYCOL EXCHANGER, AND VARIOUS PUMPS AND FILTERS, WITH PROCESS VENT CONNECTED TO EXISTING VACUUM GAS GATHERING SYSTEM |
| S-2234-195-2 | 15,540 gallons | 3020-05 B | 1 | 113.00 | 113.00 | A | METHANOL UNLOADING, STORAGE, AND LOADING OPERATION CONSISTING OF A 430 BBL STORAGE VESSEL CONTROLLED WITH A GAS BLANKET SYSTEM, AND AN UNLOADING RACK, LOADING RACK, AND METHANOL INJECTION PUMPS: |
| S-2234-200-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (R-22) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-201-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-107) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-202-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-55) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-203-4 | 1,600+ hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | A | ELECTRIC MOTOR DRIVEN COMPRESSOR SKID (K-56) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE GAS PROCESSING STATIONARY SOURCE |
| S-2234-204-5 | 7,300 MMBtu/hr | 3020-02 H | 1 | 1,238.00 | 1,238.00 | A | 7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #1 PLANT |
| S-2234-205-5 | 7,300 MMBtu/hour | 3020-02 H | 1 | 1,238.00 | 1,238.00 | A | 7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #2 PLANT |
| S-2234-206-4 | 762 hp ice | 3020-10 D | 1 | 577.00 | 577.00 | A | 762 BHP CATERPILLAR MODEL C15 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR |
| S-2234-207-5 | 1,680 BHP IC Engine | 3020-10 F | 1 | 900.00 | 900.00 | D | 1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-1) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-208-6 | 1,680 IC Engine | 3020-10 F | 1 | 900.00 | 900.00 | D | 1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-2) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-209-7 | 1,680 bhp | 3020-10 F | 1 | 900.00 | 900.00 | D | 1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-3) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-210-6 | 1,680 bhp | 3020-10 F | 1 | 900.00 | 900.00 | D | 1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-46) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-211-7 | 1,680 bhp | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-6) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-212-8 | 1,680 bhp | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-47) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-213-2 | 4.7 MMBtu/hr | 3020-02 F | 1 | 731.00 | 731.00 | A | WET GAS COMPRESSOR 14Z STATION INCLUDING THE FOLLOWING PROCESS SYSTEMS INCLUDING A GAS INLET/CHILLER, GLYCOL DEHYDRATION SYSTEM AND JOULE-THOMPSON UNIT: |
| S-2234-214-8 | 1,680 bhp | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (R-42) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-215-4 | 1680 bhp IC engine | 3020-10 F | 1 | 900.00 | 900.00 | A | 1,680 BHP NATURAL GAS-FIRED WAUKESHA MODEL L7044GSI IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A GAS COMPRESSOR (K-4) OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN FACILITY S-2234 |
| S-2234-216-2 | 26,900 hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | D | INLET GAS SYSTEM WITH ELECTRIC MOTOR DRIVEN INLET GAS COMPRESSOR(S) |
| S-2234-217-2 | miscellaneous | 3020-06 | 1 | 128.00 | 128.00 | D | MERCURY REMOVAL SYSTEM WITH INLET GAS FILTER SEPARATOR, MERCURY GUARD BED |
| S-2234-218-2 | 19.5 MMbtu/hr | 3020-02 H | 1 | 1,238.00 | 1,238.00 | D | O2 REMOVAL SYSTEM WITH 19.5 MMBTU/HR O2 HEATER WITH COEN C-RMB RAPID MIX ULTRA LOW NOX BURNER (OR EQUIVALENT) , OXYGEN REMOVAL REACTOR, OXYGEN REMOVAL DISCHARGE COOLER AND SCRUBBER AND O2 REMOVAL COOLER |
| S-2234-219-2 | 120 hp | 3020-01 D | 1 | 379.00 | 379.00 | D | INLET GAS TREATING WITH INLET GAS AMINE CONTACTOR, TREATED GAS COOLER, LEAN GLYCOL COOLER, TREATED GAS FILTER SEPARATOR |
| S-2234-220-2 | 30 hp | 3020-01 B | 1 | 143.00 | 143.00 | D | INLET GAS DEHYDRATION WITH MOLECULAR SIEVE DEHYDRATION, DRY GAS DUST FILTER, REGENERATION GAS HEATER, REGENERATION GAS COOLER AND SCRUBBER, AND REGENERATION GAS COOLER |
| S-2234-221-2 | 4043 hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | D | NGL RECOVERY WITH EXPANDER/BOOSTER COMPRESSOR, GAS/GAS EXCHANGER, COLD SEPARATOR, DEMETHANIZER REBOILERS, DEMETHANIZER, AND DEETHANIZER FEED PUMPS |
| S-2234-222-2 | 20,100 hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | D | RESIDUE GAS COMPRESSION WITH ELECTRIC MOTOR DRIVEN RESIDUE GAS COMPRESSOR(S), RESIDUE GAS COALESCER(S) |
| S-2234-223-2 | 120 hp | 3020-01 D | 1 | 379.00 | 379.00 | D | DEETHANIZER WITH REFLUX CONDENSER |
| S-2234-224-2 | 600 hp | 3020-01 F | 1 | 731.00 | 731.00 | D | DEPROPANIZER WITH REFLUX CONDENSERS AND REFLUX DRUMS |
| S-2234-225-2 | 280 hp | 3020-01 E | 1 | 495.00 | 495.00 | D | DEBUTANIZER WITH REFLUX CONDENSERS AND REFLUX DRUMS |
| S-2234-226-2 | 11,700 hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | D | REFRIGERATION SYSTEM WITH REFRIGERANT SUCTION SCRUBBER, REFRIGERANT COMPRESSOR(S) AND COMPRESSOR COMPONENTS, REFRIGERANT FLASH DRUM, REFRIGERANT CONDENSERS AND COMPONENTS, AND REFRIGERANT SURGE DRUM |
| S-2234-227-2 | miscellaneous | 3020-06 | 1 | 128.00 | 128.00 | D | AMINE SYSTEM WITH AMINE REGENERATION PACKAGE |
| S-2234-228-2 | 17.5 hp | 3020-01 A | 1 | 107.00 | 107.00 | D | GLYCOL SYSTEM WITH GLYCOL REGENERATION PACKAGE |
| S-2234-229-2 | 1210 hp | 3020-01 G | 1 | 980.00 | 980.00 | D | PROPANE TANK (EXEMPT), BUTANE TANK (EXEMPT), AND 16,250 GALLON NATURAL GAS TANK |
| S-2234-230-5 | 164 MMBtu/hr | 3020-02 H | 1 | 1,238.00 | 1,238.00 | D | HOT OIL SYSTEM WITH HOT OIL EXPANSION TANK, HOT OIL PUMPS, AND 164 MMBTU/HR HOT OIL HEATER WITH JOHN ZINK C-RMB RAPID MIX ULTRA-LOW NOX BURNER |

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-231-2 | 7,600 hp | 3020-01 H | 1 | 1,238.00 | 1,238.00 | D | OVERHEAD GAS SYSTEM WITH FUEL GAS SCRUBBER, ETHANE/CO2 GLYCOL CONTACTOR, ETHANE/CO2 COMPRESSOR(S), ETHANE COOLERS AND ETHANE COOLER COMPONENTS |
| S-2234-232-2 | 10 hp | 3020-01 A | 1 | 107.00 | 107.00 | D | METHANOL INJECTION SYSTEM INCLUDING 1,000 GALLON TANK SERVED BY VAPOR CONTROL SYSTEM |
| S-2234-233-3 | 2000 gallons | 3020-05 A | 1 | 91.00 | 91.00 | D | 2000 GALLON AMINE SUMP TANK |
| S-2234-234-3 | 3000 gallons | 3020-05 A | 1 | 91.00 | 91.00 | D | 3000 GALLON GLYCOL SUMP TANK |
| S-2234-235-5 | 11,156 MMBtu/hr | 3020-02 H | 1 | 1,238.00 | 1,238.00 | A | 250 MMSCF/DAY SMOKELESS FLARE WITH FLARE HEADER AND FLARE KNOCKOUT DRUM |
| S-2234-236-2 | 12,600 gallons | 3020-05 B | 1 | 113.00 | 113.00 | D | 300 BBL AMINE STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM |
| S-2234-237-2 | 12,600 gallons | 3020-05 B | 1 | 113.00 | 113.00 | D | 300 BBL FRESH WATER TANK SERVED BY VAPOR CONTROL SYSTEM |
| S-2234-238-2 | 21,000 gallons | 3020-05 C | 1 | 165.00 | 165.00 | D | 500 BBL PRODUCED WATER STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM |
| S-2234-239-3 | 21,000 gallons | 3020-05 C | 1 | 165.00 | 165.00 | D | 500 BBL SLOP OIL TANK CONNECTED TO EXISTING GAS GATHERING SYSTEM |
| S-2234-241-3 | 700 bhp | 3020-10 D | 1 | 577.00 | 577.00 | D | 700 HP (INTERMITTENT) CATERPILLAR MODEL C-18 TIER 3 CERTIFIED DIESEL IC ENGINE POWERING A FIREWATER PUMP |
| S-2234-245-2 | 1335 hp | 3020-01 G | 1 | 980.00 | 980.00 | A | AMINE TREATING SYSTEM WITH AMINE CONTACTOR; AMINE REGENERATION SYSTEM WITH RE-BOILER HEATED BY HOT OIL SYSTEM; WITH FLASH VESSEL AND AMINE REGENERATION OVERHEAD VAPORS ROUTED TO PROCESS SYSTEM INCLUDING OTHER MISCELLANEOUS EQUIPMENT SUCH AS FILTERS, HEAT EXCHANGERS, PUMPS AND VESSELS |
| S-2234-246-2 | 25 hp | 3020-01 A | 1 | 107.00 | 107.00 | A | ELECTRICALLY HEATED GLYCOL DEHYDRATION UNIT WITH VAPORS FROM FLASH VESSEL AND STILL VENT ROUTED TO PROCESS SYSTEM INCLUDING OTHER MISCELLANEOUS EQUIPMENT SUCH AS FILTERS, HEAT EXCHANGERS, PUMPS AND VESSELS |
| S-2234-247-3 | 68 MMBtu/hr | 3020-02 H | 1 | 1,238.00 | 1,238.00 | A | 68 MMBTU/HR VERTICALLY ORIENTED PROCESS HEATER (HOT OIL HEATER) EQUIPPED WITH COEN RMB ULTRA LOW NOX BURNER |
| S-2234-248-2 | 2000 gal | 3020-05 A | 1 | 91.00 | 91.00 | D | 2000 GALLON HORIZONTAL DRAIN TANK SERVED BY VAPOR RECOVERY SYSTEM WITH VAPORS RETURNED TO A PROCESS STREAM OR TO A GAS GATHERING SYSTEM |
| S-2234-249-1 | 2000 gal | 3020-05 A | 1 | 91.00 | 91.00 | A | 2000 GALLON HORIZONTAL DRAIN TANK EQUIPPED WITH A PRESSURE/VACUUM DEVICE TO BE USED BY AN OPEN DRAIN SYSTEM |

# Detailed Facility Report

For Facility=2234
Sorted by Facility Name and Permit Number



| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---|---|---|---|---|---|---|---|
| S-2234-250-0 | 535.5 MMBtu/hr | 3020-02 H | 1 | 1,238.00 | 1,238.00 | A | 535.5 MMBTU/HR AIR ASSISTED FLARE INCLUDING KNOCKOUT DRUM CAPABLE OF RECEIVING VENT GAS FROM HPI AND 35R GAS PLANT, SARASOTA AUTOMATION MODEL FM771 CONTINUOUS RECORDING FLOW METER, INLET GAS NOZZLE, FLARE STACK RISER, AND FLARE TIP (FLARE ALSO PERMITTED AS S-382-74) |

Number of Facilities Reported: 1