San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

FEB 0 1 2018

Ms. Peggy Shue
Aera Energy LLC
PO Box 11164
Bakersfield, CA 93389-1164

Re: Notice of Preliminary Decision – Title V Permit Renewal
District Facility # C-1121
Project # 1161537

Dear Ms. Shue:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Aera Energy LLC at Heavy Oil Production facilities in Fresno County, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. 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 Mr. Errol Villegas, Permit Services Manager, at (559) 230-5900.

Sincerely,

P. Arnaud Marjollet

Arnaud Marjollet
Director of Permit Services

Enclosures

cc: Tung Le, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via email

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SAN JOAQUIN VALLEY
AIR POLLUTION CONTROL DISTRICT

Proposed Title V Permit Renewal Evaluation
Aera Energy LLC
C-1121

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TITLE V PERMIT RENEWAL EVALUATION

Heavy Oil Production

Engineer: Carlos Garcia
Date: December 18, 2017

Facility Number: C-1121
Facility Name: Aera Energy LLC
Mailing Address: 10000 Ming Ave
PO Box 11164
Bakersfield, CA 93389-1164

Contact Name: Peggy Shue
Phone: (661) 665-5279

Responsible Officials: W.J. Dittman, E.E. Patterson, and M.A. McGarvey

Titles: Vice President, Manager of Operations, and Process Supervisor, respectively

Project # : C-1161537
Deemed Complete: June 17, 2016

I. PROPOSAL

Aera Energy LLC (Aera) was issued a Title V permit on December 31, 2001. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit (see Attachment B – Previous Title V Operating 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.

A. Permit Streamlining for Common Conditions

As part of this Title V renewal, Aera has proposed to streamline and standardize common permit conditions for the following units: steam generators, thermally

enhanced oil recovery (TEOR) wells, and controlled tanks/vessels. The facility proposes to move common permit conditions for the steam generators and TEORs from the individual permits to the facility wide permit to maintain consistency of permit conditions applicable to each specific unit type.

For example, similar conditions for periodic monitoring, fuel monitoring, and source testing for steam generators will be moved to the facility wide permit. Conditions containing emission limits, location of unit, and other unit specific conditions will remain on the individual permits.

To differentiate between the facility wide requirements and unit specific requirements on the facility wide permit, the unit category and condition type will. For example, a facility wide permit condition for a steam generator source testing common condition would be written as follows:

Facility Wide Condition:

- STEAM GENERATOR SOURCE TESTING CONDITION: *(the common permit condition will be moved here to facility wide permit)*

Additionally, a new permit condition will be added to each unit indicating the unit is subject to the common conditions on the facility wide permit. As an example, below is what will be added to each steam generator permit.

Permit Condition on Steam Generator Permit

- This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520]

Streamlining of permit conditions for each category is described in more detail below.

Steam Generators

Aera (C-1121) is proposing to streamline the permits for thirteen steam generators (C-1121-9, -10, -12, -13, -14, -15, -16, -17, -18, -19, -41, -170, and -171). As part of streamlining the permit categories, Aera is proposing to list standard conditions that are routinely listed in steam generator permits in the facility-wide permit (C-1121-0) so that these conditions are not repeated on every individual steam generator permit. These standard conditions have been separated into the following subcategories: Steam

Generator General Condition, Steam Generator Fuel Monitoring Condition, Steam Generator Periodic Monitoring Condition, and Steam Generator Source Testing Condition. The standard conditions are to be transferred to the C-1121-0 permit and removed from the thirteen individual steam generator permits.

Thermally Enhanced Oil Recovery (TEOR) Wells

Aera is proposing to streamline thermally-enhanced oil recovery operations for permit units C-1121-38, -39, -114, and -116. Similar to the steam generators, Aera is proposing to include standard conditions that are common to thermally-enhanced oil recovery operations on the C-1121-0 permit. Common conditions will be identified as a TEOR System Condition on the facility wide permit and will be removed from the individual permitted equipment.

Controlled Tanks/Vessels

Likewise, Aera is proposing to streamline their #32 Dehydration Operations (32 Dehy) for 18 permits (C-1121-22, -24, -25, -26, -45, -46, -72, -73, -79, -82, -83, -84, -85, -87, -88, -89, -90, and -91). However, under this streamlining proposal, common conditions for controlled tanks/vessel permits will be consolidated into the lowest-numbered tank permit (C-1121-45). Therefore, common conditions for the 32 Dehy will be consolidated in permit C-1121-45 and not the facility wide permit. C-1121-45 is the lowest-numbered tank permit at the facility and already contains the description for the vapor recovery system serving the streamlined units.

Common conditions will be moved for these subcategories: 32 Dehy Vapor Recovery Condition, 32 Dehy Tank Cleaning Condition, and 32 Dehy Inspection Condition.

II. FACILITY LOCATION

Aera Energy LLC is located at the Heavy Oil Production facilities in Fresno County.

III. EQUIPMENT LISTING

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

IV. GENERAL PERMIT TEMPLATE USAGE

The applicant is requesting to use the following model general permit Templates:

A. Template SJV-UM-0-3 Facility-Wide Umbrella

The applicant has requested to utilize template No. SJV-UM-0-3, Facility-Wide Umbrella Template. Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

V. SCOPE OF EPA AND PUBLIC REVIEW

Certain segments of the proposed Renewed Operating Permit are based on model general permit templates that have been previously subject to EPA and public review. The terms and conditions from the model general permit templates are included in the proposed permit and are not subject to further EPA and public review.

For permit applications utilizing model general permit templates, public and agency comments on the District's proposed actions are limited to the applicant's eligibility for model general permit template, applicable requirements not covered by the model general permit template, and the applicable procedural requirements for issuance of Title V Operating Permits.

A. Template SJV-UM-0-3 Facility-Wide Umbrella

The facility-wide permit (C-1121-0-3, conditions 1 through 40) is based on the model general permit template SJV-UM-0-3. This template has been previously approved by the EPA during the EPA and public review period.

Additionally, Aera proposed to modify two conditions (condition #8 and #23) on the facility-wide permit using SJV-UM-0-3. The following two template conditions have been previously approved by EPA in prior projects S-1032149 and S-1064857. Only the bolded text is proposed to be added to the template conditions.

8. The operator shall maintain records of required monitoring**, where applicable,** 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]

23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating **not exempt as allowed by Sections 4.1 and 4.2 of Rule 4601** 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]

Therefore, the template conditions from SJV-UM-0-3 are not subject to EPA review under this project.

A. Significant Modification for Steam Generators

Additionally, the facility is proposing to streamline and standardize various permit condition categories, as discussed in the Proposal section of this evaluation. As part of the streamlining, common sulfur monitoring conditions will be consolidated into the following two conditions on the facility wide permit (C-1121-0):

42. STEAM GENERATOR FUEL MONITORING CONDITION: For units equipped with post-combustion SO2 control equipment (e.g. SO2 scrubber), annual source testing shall be performed to measure SO2 concentration in the exhaust or SO2 control efficiency using EPA Methods 6, 6C, 8 or ARB Method 100. SOx control efficiency determination shall follow procedure in Section 6.2.8 of Rule 4320. [District Rules 4305, 4306 and 4320] Y

43. STEAM GENERATOR FUEL MONITORING CONDITION: For units not equipped with post-combustion S02 control equipment (e.g. SO2 scrubber), each fuel source shall be tested for sulfur annually using ASTM D 1072, D 3031, D 4084, or D 3246, D 6228, D 5504, EPA Method 11 or 15, or grab sample analysis by double GC for H2S and mercaptans. [District Rules 4305, 4306 and 4320] Y

The existing fuel monitoring permit conditions were originally added as part of the initial Title V permit. At the time, there were no applicable District, state or federal rules pertaining to monitoring the sulfur content for steam generators. Therefore, there were no underlying requirements for monitoring and recordkeeping provisions with respect to sulfur emission limits. These conditions were added to satisfy the Rule 2520 requirement that a Title V permit have relevant monitoring and recordkeeping requirements. However, since that time Rule 4320 was adopted. Rule 4320 does specify sulfur monitoring and recordkeeping requirements that apply to these steam generators. Aera has requested standard steam generator fuel monitoring conditions meeting the Rule 4320 requirements to simplify compliance and still meet both Rule 4320 and the requirements of Rule 2520 to have relevant monitoring and recordkeeping provisions.

Because the proposed streamlined sulfur fuel conditions will have less fuel monitoring frequency, they will considered as a significant modification and are subject to EPA and public review. Therefore, streamlining conditions for the steam generator fuel monitoring will be treated as a significant modification and these changes will be incorporated through Aera's TV renewal.

VI. FEDERALLY ENFORCEABLE REQUIREMENTS

A. Rules Updated

- District Rule 2020, Exemptions (amended December 20, 2007 ⇒ amended December 18, 2014)
- District Rule 2201, New and Modified Stationary Source Review Rule (amended December 18, 2008 ⇒ amended February 18, 2016)
- District Rule 2520, Federally Mandated Operating Permits (amended June 21, 2001)
- 40 CFR 60, Subpart GG, Standards for Performance of Stationary Gas Turbine (amended February 24, 2006 ⇒ amended February 27, 2014)
- 40 CFR Part 63, Subpart HH, National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities (amended December 22, 2007 ⇒ amended August 16, 2012)
- 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (January 31, 2013 ⇒ amended November 20, 2015)
- 40 CFR Part 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (February 1, 2013 ⇒ amended September 14, 2016)
- 40 CFR Part 64, Compliance Assurance Monitoring (promulgated October 22, 1997)
- 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners (amended June 18, 2008 ⇒ amended June 25, 2013)
- 40 CFR Part 82, Subpart F, Recycling and Emission Reduction (amended June 18, 2008 ⇒ amended April 10, 2015)

B. Rules Removed

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

C. Rules Added

- District Rule 2410, Prevention of Significant Deterioration (adopted June 16, 2011)
- 40 CFR Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (adopted 8/16/2012)

D. Rules Not Updated

- District Rule 1070, Inspections (amended December 17, 1992)
- District Rule 1080, Stack Monitoring (amended December 17, 1992)
- District Rule 1081, Source Sampling (amended December 17, 1992)
- District Rule 1100, Equipment Breakdown (amended December 17,1992)
- District Rule 1160, Emission Statements (adopted November 18, 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 4101, Visible Emissions (amended February 17, 2005)
- District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)
- District Rule 4305, Boilers, Steam Generators and Process Heaters - Phase 2 (amended August 21, 2003)

- District Rule 4306, Boilers, Steam Generators and Process Heaters - Phase 3 (amended October 16, 2008)
- District Rule 4311, Flares, (amended June 16, 2009)
- District Rule 4320, Advanced Emission Reduction Options for Boilers, Steam Generators and Process Heaters greater than 5.0 MMBtu/hr (adopted October 16, 2008)
- District Rule 4401, Steam Enhanced Crude Oil Production Wells (amended June 16, 2011)
- District Rule 4601, Architectural Coatings (amended December 17, 2009)
- District Rule 4623, Storage of Organic Liquids (amended May 19, 2005)
- District Rule 4703, Stationary Gas Turbines (adopted September 20, 2007)
- District Rule 4801, Sulfur Compounds (amended December 17, 1992)
- District Rule 8011, General Requirements (amended August 19, 2004)
- District Rule 8021, Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities (amended August 19, 2004)
- District Rule 8031, Bulk Materials (amended August 19, 2004)
- District Rule 8041, Carryout and Trackout (amended August 19, 2004)
- District Rule 8051, Open Areas (amended August 19, 2004)
- District Rule 8061, Paved and Unpaved Roads (amended August 19, 2004)
- District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas (amended September 16, 2004)
- 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos (amended July 20, 2004)
- 40 CFR Part 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (amended April 20, 2006)

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

None

B. Rules Not Updated

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

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 2020 - Exemptions

District Rule 2020 lists equipment which is specifically exempt from obtaining permits and specifies recordkeeping requirements to verify such exemptions. The amendments to this rule do not have any effect on current permit requirements and will therefore not be addressed in this evaluation.

B. District Rule 2201 - New and Modified Stationary Source Review Rule (NSR)

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, except for the terms from the following projects that are being included as part of this Title V permit renewal (see explanations below).

C-1121-170-1 and -171-1 – Steam Generators

Project #C1132948 was subject to the District's NSR Rule and the Authorities to Construct (ATCs) issued in that project were converted into Permits to Operate (PTOs) on November 6, 2017 (see Attachment C). The District processed this project in accordance with District Rule 2520 under Section 6.4.4, "Other Changes Not Requiring Title V Permit Amendment."

The permits are now being incorporated into the Title V permit as part of this Title V Renewal. As a result, the following NSR terms from the ATC are being incorporated into the Tile V permit within this renewal:

- Conditions 1, 2, 4 through 10, 24 and 37 from ATCs C-1121-170-0 and -171-0 are startup conditions which have been satisfied. The startup conditions have been satisfied and are not included in the proposed Title V permit.
- Conditions 3, 13, 14, 15, 16, 23, 36, and 38 from ATCs C-1121-170-0 and -171-0 have been included in the proposed Title V permit.
- Conditions 11, 12, 17, 18, 19, 20, 21, 22, 25 through 35, 39 and 40 (common conditions with the other steam generators) have been streamlined and included in the facility-wide permit (C-1121-0-3).

Additionally, the following condition will be added to specify that the conditions in the facility-wide permit apply to these units.

- This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520]

C-1121-45-14 – Fixed Roof Tank with Vapor Recovery

Project #C1140276 (ATC C-1121-45-12) was subject to the NSR Rule and the ATC was incorporated into the Title V permit as part of a Minor Modification under project #C1150149 (PTO C-1121-45-13). The Equipment Description from project #C1140276 was mistakenly changed from 5,000 BBL to 105,000 BBL. As a result, the Equipment Description will be administratively corrected back to 5,000 BBL in the proposed Title V permit.

C. District Rule 2410 – Prevention of Significant Deterioration (PSD)

District Rule 2410 has been newly adopted since this Title V permit was last renewed. However, the requirements of this rule are only triggered at the time

the source undergoes a modification. All applicable requirements from any PSD permit actions have already been incorporated into the current Title V permit for the following permit units.

PSD Conditions for C-1121-114-9 and 116-8 – TEOR Serving Wells

- Annual performance tests for hydrocarbon must be conducted and reported in accordance with the test methods set for the in 40 CFR 60, Part 60.8 and Appendix A. Performance tests for hydrocarbon shall be conducted using procedures approved in advance by the EPA in writing. The EPA and APCO must be notified in writing at least 30 day prior to conduction such tests. [PSD 4-4-8, SJ77-45 condition IX.H.1 and IXH.2]

D. 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.

E. 40 CFR Part 60, Subpart GG - Standard of Performance for Stationary Gas Turbines

Subsequent to the last Title V renewal for this facility, Subpart GG was amended to only address technical and editorial corrections for source testing of emissions and operations.

In subpart GG, the definitions of terms for the equation in Section 60.335(b)(l) were revised to allow the reference combustor inlet absolute pressure to be measured in millimeters of mercury (mm Hg). The site barometric pressure is allowed as an alternative to the observed combustor inlet absolute pressure for calculating the mean NOx emission concentration.

Subpart GG was last amended by revising the terms Pr and Po for the equation in paragraph (b)(1) to read as follows:

Subpart GG--[Amended]
Sec. 60.335(b) (1)

- Pr = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure. Alternatively, you may use 760 mm Hg (29.92 in Hg)
- Po = observed combustor inlet absolute pressure at test, mm Hg. Alternatively, you may use the barometric pressure for the date of the test

Therefore, the amendments to Subpart GG do not change requirements outlined in permit unit conditions of C-1121-33-10 and -34-10.

a. C-1121-33-10 and -34-10 – TG-1, 52.7 MMBtu/hr Allison GM 501-KB5 Natural Gas-Fired Turbine with Water Injection and a Selective Catalytic Reduction (SCR) System Driving a 4 MW Electrical Generator

Conditions 6 through 8, 10 through 13, 16, 22, 24, 27, 32, 33, and 35 on the proposed permits assure compliance with the requirements of 40 CFR Subpart GG.

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

The Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution were adopted 8/16/2012. They apply to certain equipment constructed, reconstructed, or modified after 8/23/2011. The standards apply to new natural gas well completions, oil/condensate storage tanks with individual tank potential VOC emissions of 6 tons per day or greater, certain centrifugal compressors with wet seals and reciprocating compressors, continuous bleed natural gas-driven pneumatic controllers with a bleed rate greater than 6 scfh, glycol dehydrators at major HAP sources, leak detection limits for new valves at gas processing plants, and sulfur removal units producing sulfur at a rate of at least 5 tons/day and located at natural gas processing plants.

This standard could potentially apply to the storage tanks located at this facility. However, Aera did not construct, modify, or reconstruct any tanks or other equipment that would fall into the affected equipment under this Subpart between August 23, 2011 and September 18, 2015. Therefore, the tanks are not an affected facility and Subpart OOOO does not apply.

G. 40 CFR Part 63, Subpart HH National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities

40 CFR Part 63, Subpart HH regulates the emissions of Hazardous Air Pollutants from oil and gas production facilities. Certain facilities are exempt from this Oil and Gas MACT regulation pursuant to 40 CFR 63.760 (e). Specifically, the exemption from 40 CFR 63.760 (e)(1) states:

A facility that exclusively processes, stores, or transfers black oil (as defined in § 63. 761) is not subject to the requirements of this subpart. For the purposes of this subpart, a black oil facility that uses natural gas for fuel or generates gas from black oil shall qualify for this exemption.

The definition of "black oil" as contained in 40 CFR 63.761 is restated below: *Black oil means hydrocarbon (petroleum) liquid with an initial producing gas-to-oil ratio (GOR) less than 0.31 cubic meters per liter and an API gravity less than 40 degrees.*

During the initial Title V application review for this facility, the San Joaquin Valley Air Pollution Control District (District) determined the documentation Aera provided for the initial GOR and API gravity was sufficient to demonstrate that Aera's Heavy Oil Production, Fresno County Stationary Source produces black oil as defined in 40 CFR 63.761. The MACT standard defines "black oil" based on the initial characteristics of the oil producing formation. Therefore, the District concluded that the facility is exempt from the requirements of 40 CFR Part 63, Subpart HH.

40 CFR Part 63, Subpart HH has not been modified since the initial Title V permit was issued, therefore, the Heavy Oil Production, Fresno County Stationary Source remains exempt from this regulation.

H. 40 CFR Part 63, Subpart YYYY National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

40 CFR Part 63, Subpart YYYY establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emissions from stationary combustion turbines located at major sources of HAP emissions. Aera has one cogeneration facility in the Heavy Oil Production, Fresno County Stationary Source, which include two Allison GM 501-KB5 turbines. Therefore, 40 CFR Part 63, Subpart YYYY is potentially applicable.

An analysis of the HAP emissions from the turbines at this facility concluded that the equipment does not constitute a Major Source of HAPs. To be considered a Major Source, the equipment must emit a single HAP in excess of 10 tons/yr or the sum of all HAPs emitted must exceed 25 tons/yr.

Section 63.6090(b)(4): "Existing stationary combustion turbines in all subcategories do not have to meet the requirements of this subpart and of subpart A of this part. No initial notification is necessary for any existing stationary combustion turbine, even if a new or reconstructed turbine in the same category would require an initial notification."

Section 63.6090 (a)(1) states that a stationary combustion turbine is an "existing stationary combustion turbine" if you commenced construction or reconstruction of the stationary combustion turbine on or before January 14, 2003. Start-up dates for the two turbines at this facility occurred in 1988 as shown in the table below, and are exempt from 40 CFR Part 63, Subpart YYYY as the turbines were constructed prior to January 14, 2003 and have not been reconstructed since that date.

C-1121 Turbine Start-up Dates:

Permit number	Unit Name	Start-up date
C-1121-33	Unit #1	June 23, 1988
C-1133-34	Unit #2	June 23, 1988

Therefore, they are existing turbines and the requirements of 40 CFR Part 63, Subpart YYYY do not apply.

I. 40 CFR Part 63, Subpart DDDDD National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial & Institutional Boilers & Process Heaters

40 CFR Part 63, Subpart DDDDD applies to certain new, reconstructed, or existing industrial, commercial, and institutional boilers and process heaters operating at a major source of Hazardous Air Pollutants. Several natural gas-fired heaters and boilers operate within the Heavy Oil Production, Fresno County Stationary Source, therefore, 40 CFR Part 63, Subpart DDDDD is potentially applicable.

Subpart DDDDD divides boilers and heaters into categories based on burner size, type of fuel, and construction or reconstruction date. Aera operates two categories of boilers and heaters at this stationary source. These are:

- existing small boilers and heaters (with fuel oil or natural gas fuel burner ratings less than or equal to 10 MMBtu/hr), and

- existing large (with burner ratings greater than 10 MMBtu/hr) boilers and heaters fired on natural gas only

40 CFR Part 63 Section 7485 defines what equipment is subject to Subpart DDDDD. It states that boilers and process heaters located at a major source of HAP as defined in Section 63.2 or 63.761 (with certain exceptions) are subject to the Subpart. Section 63.2 refers to the general definition of a major source of HAP. It states that a major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year. Section 63.761 is a more specific definition of a major source of HAP to be used for oil and gas

production facilities. It states that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site such as a central tank battery or a compressor station.

Small Boilers and Heaters

40 CFR Part 63 Section 63.7506 (c) states that existing small liquid fuel and existing small gaseous fuel boilers and process heaters are not subject to the initial notification requirements in Section 63.9 (b) and are not subject to any Subpart DDDDD requirements such as the emission limits, work practice standards, etc. Therefore, Aera's existing small boilers and heaters at this stationary source are not affected by this Subpart.

Large Boilers and Heaters

Steam generators are used at the Heavy Oil Production, Fresno County Stationary Source to provide steam to the petroleum reservoir to enhance the production of heavy crude oil. These steam generators fit the Subpart DDDDD definition of Large Boilers and Heaters. The steam generators are grouped in several distinct surface sites dedicated to steam generation activities. A list of equipment compiled by the largest surface site is shown in the following table.

C-1121 Steam Generator Sites					
PTO	**ID**	**Description**	**Burner Rating (MMBtu/hr)**	**Annual Fuel Limit (MMBtu/yr)**	**Annual Fuel Limit Notes**
Central Generator Site				**1,043,900**	
C-1121-9	C-1	Steam Generator	62.5	521,950	Permitted daily fuel limit 1,430,000 scf/day
C-1121-10	C-2	Steam Generator	62.5	521,950	Permitted daily fuel limit 1,430,000 scf/day
C-1121-12	C-4	Steam Generator (Dormant Emission Unit)	62.5	521,950	Permitted daily fuel limit 1,430,000 scf/day
North Generator Site				**2,087,800**	
C-1121-13	N-5	Steam Generator	62.5	521,950	Permitted daily fuel limit 1,430,000 scf/day
C-1121-14	N-6	Steam Generator	62.5	521,950	Permitted daily fuel limit 1,430,000 scf/day
C-1121-15	N-7	Steam Generator	62.5	521,950	Permitted daily fuel limit 1,430,000 scf/day
C-1121-16	N-8	Steam Generator	62.5	521,950	Permitted daily fuel limit 1,430,000 scf/day
Coalinga South Generator Site				**2,190,000**	
C-1121-17	S-9	Steam Generator	62.5	547,500	Permitted daily heat limit 1,500 MMBtu/day
C-1121-18	S-10	Steam Generator	62.5	547,500	Permitted daily heat limit 1,500 MMBtu/day
C-1121-19	S-11	Steam Generator	62.5	547,500	Permitted daily heat limit 1,500 MMBtu/day
C-1121-41	S-12	Steam Generator	62.5	547,500	Permitted daily heat limit 1,500 MMBtu/day
Penn Zier Generator Site *				**1,489,200**	
C-1121-170	P-1	Steam Generator	85.0	744,600	Burner rating multiplied by 8,760 hr/yr
C-1121-171	P-2	Steam Generator	85.0	744,600	Burner rating multiplied by 8,760 hr/yr

* These generators were initially started in October 2016 and have been operating under ATCs C-1121-170 and -171, and were implemented on October 27, 2016.

To be subject to 40 CFR Part 63, Subpart DDDDD, the surface generator site (as listed in the table above) must have the potential to emit Hazardous Air Pollutants in excess of the major source limits of 10 tons or more per year of any one HAP or 25 tons or more per year of any combination of HAPs.

Each steam generator site consists of the feedwater piping to the steam generators, the natural gas (and in some cases, the vapor recovery gas) piping

to fuel the generators; the steam piping to carry the steam from the generators into the oilfield, and the steam generators themselves. HAPs are potentially emitted as products of natural gas combustion through the steam generator exhaust stacks.

The Coalinga South Generator Site has the largest permitted steam generation capacity at 2,190,000 MMBtu/yr. The potential HAP emissions were determined for this location as a worst case.

HAP Calculation for Steam Generators

In 1992, the Western States Petroleum Association conducted testing of a number of steam generators to determine emission factors for air toxics for use in reporting for the California AB2588 air toxics inventory program. These factors will be used to calculate the Potential to Emit for Hazardous Air Pollutants from combustion in the steam generators. For example, the potential annual emissions of formaldehyde from the Coalinga South Generator Site can be calculated as follows:

$$PE_{Formaldehyde} = \left(3.3\ x\ 10^{-2}\ \frac{lb}{MMcf}\right)\left(2{,}190{,}000{,}000\ \frac{MMBtu}{yr}\right)\left(\frac{MMcf}{1020\ MMBtu}\right)\left(\frac{ton}{2{,}000\ lb}\right)$$

$$= 0.035\ \frac{ton}{yr}$$

Calculations for all toxic emissions identified in the AB2588 reporting process for the Coalinga South Generator Site are shown in the following table.

HAPs emissions for Coalinga South Generator Site				
CAS #	Compound	HAP	Emission Factor[1] [lb/MMcf]	Annual Emissions [ton/yr]
Highest annual heat input - steam generator site: 2,190,000 MMBtu/yr Higher heating value of natural gas[2]: 1020 Btu/scf				
71432	Benzene	Y	1.60E-03	0.002
108883	Toluene	Y	2.00E-02	0.021
100414	Ethyl Benzene	Y	1.20E-02	0.013
95476	Total Xylene	Y	2.50E-02	0.027
50000	Formaldehyde	Y	3.30E-02	0.035
75070	Acetaldehyde	Y	1.40E-02	0.015
107028	Acrolein	Y	1.40E-02	0.015
115071	Propylene	N	6.00E-01	--
91203	Naphthalene	Y	1.87E-04	0.000
203968	Acenaphthylene	Y	3.70E-07	0.000
83329	Acenaphthene	Y	5.40E-07	0.000
86737	Fluorene	Y	2.40E-06	0.000
85018	Phenanthrene	Y	1.20E-05	0.000
120127	Anthracene	Y	2.40E-06	0.000
206440	Fluoranthene	Y	1.40E-06	0.000
129000	Pyrene	Y	2.00E-06	0.000
218019	Chrysene	Y	1.13E-06	0.000
56553	Benz(a)anthracene	Y	1.30E-06	0.000
205992	Benzo(b)fluoranthene	Y	3.70E-07	0.000
207089	Benzo(k)fluoranthene	Y	3.70E-07	0.000
50328	Benzo(a)pyrene	Y	3.70E-07	0.000
193395	Indeno(1,2,3-c,d)pyrene	Y	3.70E-07	0.000
53703	Dibenzo(a,h)anthracene	Y	3.70E-07	0.000
191242	Benzo(g,h,i)perylene	Y	3.70E-07	0.000
--	PAH	Y	2.70E-05	0.000
			Total:	**0.129**

[1] Emission factors are from the 1992 WSPA Pooled Source Testing for AB2588.
[2] Higher heating value from AP-42, Table 1.4-3.

Total HAP Potential to Emit

Aera has identified four sites with at least one steam generator assigned the C-1121 permit number. The Coalinga South Generator Site has the highest annual heat input rate. Based on the above calculations, the potential HAP

emission from the Coalinga South Generator Site are significantly less than the major source limits of 10 tons or more per year of any one HAP or 25 tons or more per year of any combination of HAPs. The remaining three steam generator sites will have lower annual emissions. Therefore, none of Aera's steam generator sites are considered major sources, and, Subpart DDDDD does not apply to these steam generators.

J. 40 CFR Part 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

40 CFR Part 63, Subpart JJJJJJ applies to certain new, reconstructed, or existing industrial, commercial, and institutional boilers operating at an area source (i.e. non-Major Source) of Hazardous Air Pollutants. Several natural gas-fired boilers operate within the Heavy Oil Production, Fresno County Stationary Source, and as demonstrated above, the surface sites where these steam generators are located are considered area sources. Therefore, 40 CFR Part 63, Subpart JJJJJJ is potentially applicable.

40 CFR 63.11194 defines what equipment is subject to Subpart JJJJJJ. It states that boilers located at an area source of HAP as defined in Section 63.2 or 63.761 (with certain exceptions) are subject to the Subpart.

40 CFR 63.11195 lists the equipment that is considered exempt from Subpart JJJJJJ. Gas-fired boilers are exempt from Subpart JJJJJJ under 40 CFR 63.11195 (e). All of the steam generators operated within the C-1121 stationary source meet the definition of "gas-fired boiler" as provided in 40 CFR 63.11237 and are therefore exempt from Subpart JJJJJJ.

K. 40 CFR Part 64 - Compliance Assurance Monitoring (CAM)

§64.2 – Applicability

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.

The pre "add-on control" emissions are:

0.028 lb/MMBtu x 62.5 MMBtu/hr x 8,760 hr/yr x ton/2,000 lb

= 7.7 tons/yr < 10 tons/yr

As pre-control annual emissions are less than 10 tons/yr enhanced CAM monitoring is not required.

b. C-1121-170 and -171 — 85 MMBtu/hr Steam Generators with Low NOx Burners and FGR

1) These units have emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.

2) The units have no add-on controls for SO_X, PM_{10}, CO, or VOC emissions, and are therefore not subject to CAM for SO_X, PM_{10}, CO, or VOC emissions. The units have flue gas recirculation (FGR) add-on controls for control of NOx emissions and may therefore be subject to CAM for NOx emissions.

3) The pre-control PE for NOx emissions is calculated as follows:

The units are currently operating in compliance with Rules 4305, 4306, and 4320 and therefore are required to meet the NOx emissions limit of 0.0084 lb-NOx/MMBtu. To assess whether CAM is triggered, the emissions factor corresponding to pre add-on of FGR was calculated.

AP-42 Table 1.4-1 (7/98) lists the following emissions factors for small boilers < 100 MMBtu/hr

	Emissions Factor ($lb/10^6$ scf)
Uncontrolled	100
Controlled - low NOx burners	50
Controlled - Low NOx burners/Flue gas recirculation	32

The control efficiency of FGR and corresponding emissions factor are:

100 x (50 - 32)/50 = 36%

0.0084/(1 - 0.36) = 0.0131 lb/MMBtu

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

a. C-1121-9, -10, -12, -13, -14, -15, -16, -17, -18, -19, -41 — 62.5 MMBtu/hr Steam Generators with Low NOx Burners and FGR

1) These units have emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.

2) The units have no add-on controls for SO_X, PM_{10}, CO, or VOC emissions, and are therefore not subject to CAM for SO_X, PM_{10}, CO, or VOC emissions. The units have flue gas recirculation (FGR) add-on controls for control of NOx emissions and may therefore be subject to CAM for NOx emissions.

3) The pre-control PE for NOx emissions is calculated as follows:

The units are currently operating in compliance with Rules 4305 and 4306 and therefore are required to meet the NOx emissions limit of 0.018 lb/MMBtu. To assess whether CAM is triggered, the emissions factor corresponding to pre add-on of FGR was calculated. Note that unit -12 is a dormant emissions unit (DEU) and cannot be restarted (permit condition 2) until Rule 4305 and 4306 requirements are met.

AP-42 Table 1.4-1 (7/98) lists the following emissions factors for small boilers < 100 MMBtu/hr

	Emissions Factor ($lb/10^6$ scf)
Uncontrolled	100
Controlled - low NOx burners	50
Controlled - Low NOx burners/Flue gas recirculation	32

The control efficiency of FGR and corresponding emissions factor are:

100 x (50 - 32)/50 = 36%

0.018/(1 - 0.36) = 0.028 lb/MMBtu

The pre "add-on control" emissions are:

0.0131 lb/MMBtu x 85 MMBtu/hr x 8,760 hr/yr x ton/2,000 lb

= 4.9 tons/yr < 10 tons/yr

As pre-control annual emissions are less than 10 tons/yr enhanced CAM monitoring is not required.

c. C-1121-33-10 and -34-10 – 52.7 MMBtu/hr Natural Gas-Fired Turbine with Water Injection and a SCR System

1) These units have emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.

2) The units have no add-on controls for SO_X, PM_{10}, CO, or VOC emissions, and are therefore not subject to CAM for SO_X, PM_{10}, CO, or VOC emissions. The units have add-on controls (SCR) for control of NOx emissions and may therefore be subject to CAM for NOx emissions.

3) The pre-control PE for NOx emissions is based on the post-control PE of 5 ppmv @ 15% O2 and 46.3 lb-NOx/day (permit limitations), operating at 365 days/year, and the SCR control efficiency (CE) of 90%.[1]

Post-control = DEL x 365 day/yr

16,899.5 lb-NOx/yr = (46.3 lb-NOx/day)(365 day/yr)

Pre-control PE = (Post-control PE)/(1 – CE)

= (16,899.5 lb-NOx/yr)/(1 - 0.90)
= 168,995 lb-NOx/yr

Since the pre-control PE is greater than the major source threshold for NOx (20,000 lb/yr), these units are subject to CAM for NOx emissions.

In order to determine if a 15-minute monitoring interval is required, the post-control PE is compared to the major source threshold:

= 16,899.5 lb-NOx/yr

[1] The installation of the SCR system for units C-1121-33 and -34 were analyzed in Project #C1112108. The evaluation stated that SCR is capable of over 90 percent NO_X emissions reduction (AP-42, Section 3.1).

Since the post-control PE does not exceed the major source threshold, continuously monitoring the ammonia injection rates and water-to fuel ratios is sufficient to determine compliance with CAM.

d. C-1211-45, -46, -79, -82, -83, -84, -85, -87, -88, -89, and -90 – Fixed Roof Tanks with Vapor Recovery System; and C-1211-72, -73, and -91 – FWKOs or Water Clarifier with Vapor Recovery System

§64.1 defines a control device as equipment, other than inherent process equipment, that is used to destroy or remove air pollutants prior to discharge to the atmosphere. For tanks equipped with a vapor control system, the District has determined that the vapor control system is "inherent process equipment, i.e. the vapor control system is used to increase the safe and proper functioning of the tank battery. Such a vapor control system serves to reduce emission of H2S (a toxic substance) from the tanks and to reduce corrosion in the tanks vapor space by eliminating the intrusion of ambient air. Inherent process equipment is explicitly excluded from the definition of control device as defined in 40 CFR 64.

Therefore, these permit units are not subject to CAM since the units do not have add-on controls.

These permit units are not subject to CAM since the units do not have add-on controls.

§64.3 - Monitoring Design Criteria

This section specifies the design criteria for the CAM system. Paragraph (a) (*General criteria*) requires that the CAM system be designed to obtain data for one or more appropriate indicators of emission control system performance and requires the owner to establish appropriate ranges or designated conditions for the selected indicators such that operation within the ranges provides a reasonable assurance of ongoing compliance with emission limitations or standards for the anticipated range of operating conditions.

Paragraph (b) (*Performance criteria)* requires the owner or operator to establish and maintain the following:

- Specifications to ensure that representative data are collected.
- Verification procedures for startup of new monitoring equipment.
- Quality assurance and control practices to ensure continuing validity of data.
- Data collection frequency and procedures.

Paragraph (c) (*Evaluation factors)* requires the owner or operator to take into account site-specific factors in the design of the CAM system.

Paragraph (d) (*Special criteria for the use of continuous emission, opacity, or predictive monitoring systems)* requires the owner or operator to use a continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS), or a predictive emission monitoring system (PEMS) to satisfy CAM requirements, provided that these monitoring systems are required pursuant to other authority under the Clean Air Act or state or local law. This subsection also stipulates the following:

- The use of a CEMS, COMS, or PEMS that satisfies any of the following monitoring requirements shall be deemed to satisfy the general design criteria in paragraphs (a) and (b) of this section, provided that a COMS may be subject to the criteria for establishing indicator ranges under paragraph (a) of this section:

(i) Section 51.214 and appendix P of 40 CFR 51;

(ii) Section 60.13 and appendix B of 40 CFR 60;

(iii) Section 63.8 and any applicable performance specifications required pursuant to the applicable subpart of 40 CFR 63;

(iv) 40 CFR 75;

(v) Subpart H and appendix IX of 40 CFR 266; or

(vi) In the event that the monitoring system is not subject to any of the requirements listed above, comparable requirements and specifications established by the permitting authority.

- The owner or operator shall design the monitoring system subject to this paragraph (d) to:

(i) Allow for reporting of exceedances (or excursions if applicable to a COMS used to assure compliance with a particulate matter standard), consistent with any period for reporting of exceedances in an underlying requirement. If an underlying requirement does not contain a provision for establishing an averaging period for the reporting of exceedances or excursions, the criteria used to develop an averaging period specified in the data collection procedures required under paragraph (b) of this section shall apply; and

(ii) Provide an indicator range consistent with paragraph (a) of this section for a COMS used to assure compliance with a particulate matter standard. If an opacity standard applies to the pollutant-specific emissions unit, such limit may be used as the appropriate indicator range unless the opacity limit fails to meet the criteria in paragraph (a) of this section after considering the type of control

device and other site-specific factors applicable to the pollutant-specific emissions unit.

§64.4 - Submittal Requirements

This section specifies submittal requirements for the owner or operator which ensure the CAM system will comply with the design criteria of §64.3.

§64.5 - Deadlines for Submittals

This section specifies required timing for submittals required under §64.4.

Large pollutant-specific emissions units (those with controlled emissions exceeding major source thresholds) are required to make the submittals as a part of the initial Title V permit application where the application has either not been filed or has not been deemed complete. Where the initial Title V permit has been issued without implementation of 40 CFR 64, the owner or operator must make the required submittals as a part of a subsequent application for any significant permit revision. If the required information is not submitted by either of these deadlines, it must be submitted as a part of the application for the Title V permit renewal.

For *other pollutant-specific emissions units,* the required submittal deadline is the application for Title V permit renewal.

§64.6 - Approval of monitoring

This section stipulates the following:

- A requirement that the permitting authority act to approve the proposed monitoring by confirming that the monitoring submitted complies with the requirements of §64.3
- An allowance for the permitting authority to condition the approval based on collecting additional data on the indicators to be monitored, including performance or compliance testing
- The minimum conditions that must be placed on the permit in the event that the proposed monitoring is approved by the permitting authority including a milestone schedule for completion of any conditional approval actions required by the owner or operator, such as installations, testing, or verification of operational status
- Actions required by the permitting authority in the event that the proposed monitoring is not approved

The CAM submittal requirements and stipulations for approval of such submittals pursuant to §64.4, §64.5, and §64.6 have been completed in conjunction with the application and review process for this renewal of the Title V permit.

§64.7 - Operation of Approved Monitoring

This section stipulates the following:

- Requirements that the owner or operator 1) commence the monitoring upon receipt of a Title V permit that includes such monitoring, 2) properly maintain the monitoring system, and 3) conduct all monitoring in a continuous mode with the exception of outage periods associated with monitor malfunction and repair and with quality assurance and control activities
- Actions required by the owner or operator in response to excursions or exceedances
- A requirement for the owner or operator to document any need for improved monitoring based upon either an identification of a failure of the monitoring system to identify an excursion or exceedance or upon the results of compliance or performance testing that identifies a need to modify the monitoring

§64.8 - Quality Improvement Plan (QIP) Requirements

This section stipulates that the Administrator or the permitting authority may require that the facility develop and implement a QIP in the event of a determination of a need for improved monitoring pursuant to §64.7. §64.8 also identifies the minimum elements required in the QIP, and requires that the facility implement the QIP as expeditiously as possible, with implementation not exceeding 180 days after the date that the need for implementation was identified unless the permitting authority is notified.

§64.9 - Reporting and Recordkeeping Requirements

This section stipulates the minimum reporting and recordkeeping requirements for facilities subject to 40 CFR 64.

§64.10 - Savings Provisions

This section states that the purpose of 40 CFR 64 is to require, as a part of the issuance of a Title V permit, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of 40 CFR 64. In addition, §64.10 states that nothing in 40 CFR 64 shall excuse an owner or operator from any other requirements of federal,

state or local law or restrict or abrogate the authority of the Administrator or of the permitting authority.

The facility proposes to comply with CAM by monitoring the oxidation catalyst temperatures. The oxidation catalyst temperatures for both units C-4140-1 and unit C-4140-2 are monitored by four thermocouples downstream of the turbines and tempering air fans. An average of the four measurements will be taken and compared to the manufacturer recommended catalyst operating temperature of 700 degrees Fahrenheit or higher.

CAM Permit Conditions

The following conditions on the draft renewed permit are a mechanism to ensure compliance with the requirements of this section:

Permit Unit	Condition #s
C-1121-33-10 and -34-10	10, 11, 12, 13, 15, 20, 21, 22 and 31

L. 40 CFR Part 82, Subpart B - Stratospheric Ozone

The purpose of 40 CFR Part 82 Subpart B is to implement section 609 of the Clean Air Act, as amended regarding the servicing of motor vehicle air conditioners (MVACs), and to implement section 608 of the Clean Air Act regarding certain servicing, maintenance, repair and disposal of air conditioners in MVACs and MVAC-like appliances.

These regulations apply to any person performing service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner.

The amendments to this rule do not have any effect on current permit requirements and will therefore not be addressed further in this evaluation.

C-1121-0-3: Facility-Wide Requirements

A. Condition 28 of the requirements of the draft renewed facility-wide permit is a mechanism to ensure compliance with this rule.

M. 40 CFR Part 82, Subpart F -Stratospheric Ozone

The purpose of 40 CFR Part 82 Subpart F is to reduce emissions of class I and class II refrigerants and their substitutes to the lowest achievable level by maximizing the recapture and recycling of such refrigerants during the service, maintenance, repair, and disposal of appliances and restricting the sale of

refrigerants consisting in whole or in part of a class I and class II ODS in accordance with Title VI of the Clean Air Act.

These regulations apply to any person servicing, maintaining, or repairing appliances. This subpart also applies to persons disposing of appliances, including small appliances and motor vehicle air conditioners. In addition, this subpart applies to refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturer of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, persons selling class I or class II refrigerants or offering class I or class II refrigerants for sale, and persons purchasing class I or class II refrigerants.

The amendments to this rule do not have any effect on current permit requirements and will therefore not be addressed further in this evaluation.

C-1121-0-3: Facility-Wide Requirements

- Condition 27 of the requirements of the draft renewed facility-wide permit is a mechanism to ensure compliance with this rule.

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

1. Model General Permit Template SJV-UM-0-3

   By submitting Model General Permit Template SJV-UM-0-3 qualification form, the applicant has requested that a permit shield be granted for all the applicable requirements identified by the template. Therefore, the permit shields as granted in Model General Permit Template is included as conditions 39 and 40 of the facility-wide requirements (C-1121-0-3).

B. Requirements not Addressed by Model General Permit Templates

The applicant is not requesting any new permit shields.

C. Obsolete Permit Shields From Existing Permit Requirements

The facility requested to remove specific permit shields from existing permit requirements. Therefore, the following permit conditions will be removed as discussed below.

1. Permit Units C-1121-9, and -13

Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2]

2. Permit Units C-1121-9, and -13

Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Last Amended December 17, 1992), 4301 (Last Amended December 17, 1992), 4406 (Amended December 17, 1992), and 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2]

3. Permit Units C-1121-13, -17, -18, -19, and -41

Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2]

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. Permits to Operate and Authority to Construct Permits for C-1121-170 and -171
D. Detailed Summary List of Facility Permits

ATTACHMENT A

Draft Renewed Title V Operating Permit

San Joaquin Valley
Air Pollution Control District

FACILITY: C-1121-0-3 **EXPIRATION DATE:** 12/31/2016

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FACILITY-WIDE REQUIREMENTS

1. {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
2. {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
3. {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
4. {4365} 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 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. {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
6. {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
7. {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
8. The operator shall maintain records of required monitoring, where applicable, 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

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FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

9. {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

10. {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

11. {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

12. {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

13. {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

14. {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

15. {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

16. {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

17. {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

18. {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

19. {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

20. {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

21. {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

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22. {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

23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating not exempt as allowed by Sections 4.1 and 4.2 of Rule 4601 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

24. {4385} 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

25. {4386} 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

26. {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

27. {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

28. {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

29. {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

30. {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

31. {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

32. {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

33. {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

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34. {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

35. {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

36. {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

37. {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

38. {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

39. {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

40. {4401} 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

41. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

42. STEAM GENERATOR FUEL MONITORING CONDITION: For units equipped with post-combustion SO2 control equipment (e.g. SO2 scrubber), annual source testing shall be performed to measure SO2 concentration in the exhaust or SO2 control efficiency using EPA Methods 6, 6C, 8 or ARB Method 100. SOx control efficiency determination shall follow procedure in Section 6.2.8 of Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

43. STEAM GENERATOR FUEL MONITORING CONDITION: For units not equipped with post-combustion S02 control equipment (e.g. SO2 scrubber), each fuel source shall be tested for sulfur annually using ASTM D 1072, D 3031, D 4084, or D 3246, D 6228, D 5504, EPA Method 11 or 15, or grab sample analysis by double GC for H2S and mercaptans. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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44. STEAM GENERATOR GENERAL CONDITION: Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

45. STEAM GENERATOR GENERAL CONDITION: Emission rates during startup, shutdown, and refractory curing shall not exceed any of the following: particulate matter - 10 pounds per hour or 0 1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, 4405, 4406 and 4801] Federally Enforceable Through Title V Permit

46. STEAM GENERATOR PERIODIC MONITORING CONDITION: 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 2520, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

47. STEAM GENERATOR PERIODIC MONITORING CONDITIONS: If the NOx and/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 performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

48. STEAM GENERATOR PERIODIC MONITORING CONDITION: 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 and 4306] Federally Enforceable Through Title V Permit

49. STEAM GENERATOR PERIODIC MONITORING CONDITION: The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume 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

50. STEAM GENERATOR PERIODIC MONITORING CONDITION: 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. Unless otherwise 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. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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51. STEAM GENERATOR SOURCE TESTING CONDITION: 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. 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

52. STEAM GENERATOR SOURCE TESTING CONDITION The following test methods shall be used NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

53. STEAM GENERATOR SOURCE TESTING CONDITION: 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

54. STEAM GENERATOR SOURCE TESTING CONDITION: 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

55. STEAM GENERATOR SOURCE TESTING CONDITION: Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). 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

56. TEOR SYSTEM CONDITION: During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the requirements of District Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

57. TEOR SYSTEM CONDITION: The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. [District Rule 4401] Federally Enforceable Through Title V Permit

58. TEOR SYSTEM CONDITION: An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emission to atmosphere, or 2) the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system. [District Rule 4401] Federally Enforceable Through Title V Permit

59. TEOR SYSTEM CONDITION: There shall be no open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, 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 lines. 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 4401] Federally Enforceable Through Title V Permit

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60. TEOR SYSTEM CONDITION: An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

61. TEOR SYSTEM CONDITION: No leaking components (as defined in Section 5.2.2 of Rule 4401) may be used unless they have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5. [District Rule 4401] Federally Enforceable Through Title V Permit

62. TEOR SYSTEM CONDITION: Each hatch shall be closed at all times except during attended repair, replacement, or maintenance operations, providing such activities are done as expeditiously as possible with minimal spillage or material and VOC emissions into the atmosphere. [District Rule 4401] Federally Enforceable Through Title V Permit

63. TEOR SYSTEM CONDITION: Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year. [District Rule 4401] Federally Enforceable Through Title V Permit

64. TEOR SYSTEM CONDITION: An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

65. TEOR SYSTEM CONDITION: An operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: 1) An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. 2) Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

66. TEOR SYSTEM CONDITION: The operator shall also perform the following inspections: 1) An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. 2) An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service, and 3) Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401] Federally Enforceable Through Title V Permit

67. TEOR SYSTEM CONDITION: Components located in unsafe areas shall be inspected and repaired at the next process unit turnaround and inaccessible components shall be inspected at least annually. [District Rule 4401] Federally Enforceable Through Title V Permit

68. TEOR SYSTEM CONDITION: Upon detection of a leak, an operator shall affix a readily visible weatherproof tag to that leaking component that includes the following information; 1) The date and time of leak detection; 2) The date and time of the leak measurement; 3) For a gaseous leak, the leak concentration in ppmv; 4) For a liquid leak, whether it is a major or minor liquid leak; and 5) Whether the component is an essential component, and unsafe-to-monitor component, or a critical component. [District Rule 4401] Federally Enforceable Through Title V Permit

69. TEOR SYSTEM CONDITION: The tag shall remain affixed to the leaky component until all the following requirements are met: 1) The component is repaired or replaced, 2) The component is re-inspected as set forth in Section 6.3 of Rule 4401, and 3) The component is found to be in compliance with Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

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70. TEOR SYSTEM CONDITION: An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible but not later than one (1) hour after detection of the leak. [District Rule 4401] Federally Enforceable Through Title V Permit

71. TEOR SYSTEM CONDITION Except tor leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3 0 of Rule 4401, an operator shall comply with at least one of the following three requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: 1) Repair or replace the leaking component, 2) Vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or 3) Remove the leaking component from operation. [District Rule 4401] Federally Enforceable Through Title V Permit

72. TEOR SYSTEM CONDITION: The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

73. TEOR SYSTEM CONDITION: The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401 [District Rule 4401] Federally Enforceable Through Title V Permit

74. TEOR SYSTEM CONDITION: If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of Rule 4401, the operator shall repair or replace the essential component or critical component 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, whichever comes earlier. [District Rule 4401] Federally Enforceable Through Title V Permit

75. TEOR SYSTEM CONDITION: The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401] Federally Enforceable Through Title V Permit

76. TEOR SYSTEM CONDITION: An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

77. TEOR SYSTEM CONDITION: Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4401] Federally Enforceable Through Title V Permit

78. TEOR SYSTEM CONDITION: An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401] Federally Enforceable Through Title V Permit

79. TEOR SYSTEM CONDITION: If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 of Rule 4401 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401] Federally Enforceable Through Title V Permit

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80. TEOR SYSTEM CONDITION: An operator shall comply with the following requirements for each gauge tank as defined in Section 3.17 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

81. TEOR SYSTEM CONDITION: 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 4401] Federally Enforceable Through Title V Permit

82. TEOR SYSTEM CONDITION: VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401] Federally Enforceable Through Title V Permit

83. TEOR SYSTEM CONDITION: Leak inspection, other than audio-visual, and 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 instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401] Federally Enforceable Through Title V Permit

84. TEOR SYSTEM CONDITION: The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401] Federally Enforceable Through Title V Permit

85. TEOR SYSTEM CONDITION: The operator shall maintain an inspection log in which the operator records at least all of the following for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type, 2) The location, type and name or description of each leaking component and description of any unit where the leaking component is found, 3) The date of leak detection and the method of leak detection, 4) For gaseous leaks, the leak concentration in ppmv and, for liquids leaks, whether the leak is major or minor, 5) The date of repair, replacement or removal from operation of leaking components, 6) The identity and location of essential components and critical components as defined in Rule 4401, found leaking, that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, 7) The methods 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 1 year after detection, whichever comes earlier, 8) The date or re-inspection and the leak concentration in ppmv after the component is repaired or replaced, 9) The inspector's name, business mailing address, and business telephone number, and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401] Federally Enforceable Through Title V Permit

86. TEOR SYSTEM CONDITION: The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401] Federally Enforceable Through Title V Permit

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FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

87. TEOR SYSTEM CONDITION: By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401] Federally Enforceable Through Title V Permit

88. TEOR SYSTEM CONDITION: Non-condensibles shall be exhausted into a working steam generator firebox or flare for combustion. [District NSR Rule and District Rule 4401] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-9-18 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
SG C-1, 62.5 MMBTU/HR THERMOTICS NATURAL GAS-FIRED STEAM GENERATOR, WITH COEN QLN ULN BURNER WITH FLUE GAS RECIRCULATION

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 Rule 2201] Federally Enforceable Through Title V Permit
2. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fuel consumption from the steam generator shall not exceed 1,430,000 scf/day of natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 15 ppmv NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 50 ppmv CO @ 3% O2, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4201, 4305, and 4306] Federally Enforceable Through Title V Permit
5. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
6. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit
7. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
8. This unit is fired only on gaseous fuel and has no provisions for firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
9. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-10-19 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** T19S **RANGE:** R15E

EQUIPMENT DESCRIPTION:
SG C-2, 62.5 MMBTU/HR THERMOTICS STEAM GENERATOR, GAS FIRED, WITH COEN QLN-ULN BURNER WITH FLUE GAS RECIRCULATION

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PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Fuel consumption shall not exceed 1,430,000 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Unit shall be exclusively fired with natural gas containing no more than 0.35 grain of total sulfur per 100 standard cubic feet of gas. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Emissions from the natural gas-fired steam generator shall not exceed any of the following limits: 0.001 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Except during start-up and shutdown periods and refractory curing, emissions from the natural gas-fired steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 43 ppmvd CO @ 3% O2 or 0.032 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit
6. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 51.5 lb-NOx/day or 45.8 lb-CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
9. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit
10. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-12-8 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
DORMANT SG C-4, 62.5 MMBTU/HR THERMOTICS GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN MODEL 6131G LONOX BURNER

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PERMIT UNIT REQUIREMENTS

1. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
2. This equipment shall not be operated for any reason until necessary retrofits are made to comply with the applicable requirements of District Rule 4305 [District NSR Rule and Rule 4305] Federally Enforceable Through Title V Permit
3. No modification to this unit shall be performed without an Authority to Construct for that modification, except for changes specified in condition 4 below. [District NSR Rule] Federally Enforceable Through Title V Permit
4. All fuel supply lines shall be physically disconnected from the unit. [District NSR Rule and Rule 4305] Federally Enforceable Through Title V Permit
5. Emissions from this unit shall not exceed 30 ppm NOx, (0.036 lb-NOx/MMBtu @ 3% O2), nor 400 ppm CO @ 3% O2 when fired on natural gas fuel . [District NSR Rule and Rule 4305, 5.1, 5.3] Federally Enforceable Through Title V Permit
6. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Fuel consumption shall not exceed 1,430,000 scf/day of PUC Quality natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Combined exhaust gases from the two CVR (C-1121-38 and -39) and the section 32 TVR systems shall not exceed 675,000 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions shall not exceed 0.061 lb-NOx/MMBtu @ 3% O2 calculated as NO2; 0.08 lb-SOx/MMBtu calculated as SO2; 0.032 lb-CO/MMBtu @ 3% O2; 0.057 lb-PM10/MMBtu calculated at 12% CO2 nor 0.008 lb-VOC/MMbtu. [District NSR Rule, and Rules 4201, 5.1 and 4301, 5.1, 5.2] Federally Enforceable Through Title V Permit
10. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
11. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-13-17 **EXPIRATION DATE:** 12/31/2016

SECTION: 26 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED THERMOTICS STEAM GENERATOR WITH COEN QLN LONOX BURNER AND FLUE GAS RECIRCULATION (SG N-5)

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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. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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
4. Fuel consumption from the steam generator shall not exceed 1,430,000 scf/day of natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 15 ppmv NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 50 ppmv CO @ 3% O2, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4201, 4305, and 4306] Federally Enforceable Through Title V Permit
6. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
7. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit
8. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
9. This unit is fired only on gaseous fuel and has no provisions for firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
10. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-14-18 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

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EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR THERMOTICS STEAM GENERATOR (SG N-6) GAS FIRED, WITH COEN QLN-ULN BURNER WITH FLUE GAS RECIRCULATION

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Fuel consumption shall not exceed 1,430,000 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Emissions from the natural gas-fired steam generator shall not exceed any of the following limits: 0.001 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Except during start-up and shutdown periods and refractory curing, emissions from the natural gas-fired steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 43 ppmvd CO @ 3% O2 or 0.032 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit
5. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 51.5 lb-NOx/day or 45.8 lb-CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
8. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit
9. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-15-18 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR THERMOTICS STEAM GENERATOR (SG N-7), GAS FIRED, WITH COEN QLN-ULN BURNER WITH FLUE GAS RECIRCULATION

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PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Fuel consumption shall not exceed 1,430,000 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Emissions from the natural gas-fired steam generator shall not exceed any of the following limits: 0.001 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Except during start-up and shutdown periods and refractory curing, emissions from the natural gas-fired steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 43 ppmvd CO @ 3% O2 or 0.032 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit
5. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 51.5 lb-NOx/day or 45.8 lb-CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
8. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit
9. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-16-17 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
SG N-8, 62.5 MMBTU/HR THERMOTICS STEAM GENERATOR, GAS FIRED, WITH NORTH AMERICAN MODEL 6131G LONOX BURNER WITH FLUE GAS RECIRCULATION

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PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Fuel consumption shall not exceed 1,430,000 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed any of the following limits: 0.001 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Except during start-up and shutdown periods and refractory curing, emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 43 ppmvd CO @ 3% O2 or 0.032 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit
5. During start-up and shutdown periods, emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed either of the following limits: 51.5 lb-NOx/day or 45.8 lb-CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
8. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit
9. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-17-29 **EXPIRATION DATE:** 12/31/2016

SECTION: 26 **TOWNSHIP:** 19S **RANGE:** 15E

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EQUIPMENT DESCRIPTION:
S-9, 62.5 MMBTU/HR THERMOTICS, NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH COEN QLN ULN BURNER AND FLUE GAS RECIRCULATION SERVED BY LO-COST H2S SCAVENGER SYSTEM AND SULFATREAT VESSELS SHARED WITH PERMIT UNITS C-1121-18, '-19 AND '-41

PERMIT UNIT REQUIREMENTS

1. Fuel consumption for the steam generator shall not exceed 1,500 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combined quantity of well vent and tank vapor recovery gases combusted within steam generators '-17, '-18, '-19, and '-41, from the four CVR systems (C-1121-38, -39, -114, & -116) and the section 32 TVR system shall not exceed 1,300,000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Only natural gas, vapor recovery gas, or a combination of natural gas and vapor recovery gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
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. Lo-Cost H2S scavenging system shall be used whenever vapor recovery gas is fired in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following limits: NOx (as NO2): 14 ppmv @ 3% O2 or 0.017 lb/MMBtu (25.5 lb/day), CO: 43 ppmv @ 3%O2 or 0.032 lb/MMBtu (48.0 lb/day), PM10: 0.0076 lb/MMBtu (11.4 lb-PM10/day), or VOC: 0.008 lb/MMBtu (12.0 lb/day). [District Rules 2201, 4201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
8. When fired on PUC quality natural gas, the SOx emissions rate shall not exceed 0.00285 lb/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
9. When fired on gases other than PUC quality natural gas, the SOx emissions rate shall not exceed 9 ppmv @ 3% O2 or 0.015 lb/MMBtu (22.8 lb/day). [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. Combined emissions of SOx, calculated as SO2, from the steam generators and the flare (C-1121-17, -18, -19, -41, & -168) shall not exceed 28,580 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The sulfur content of treated waste gas exiting the H2S Scavenger System shall be determined on a daily basis by gas detector tube sampling. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
12. Daily SOx emissions from combustion of waste gas shall be calculated based on the waste gas sulfur content as determined by gas detector tube sampling or the most recent laboratory analysis, whichever is greater. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. When source or type of gas changes, sampling for sulfur content shall be conducted within one week. A change in fuel type is defined as changing between any of the following: PUC-Quality gas, unprocessed field gas, or any field gas with any specific level of pretreatment. [District Rule 2520] Federally Enforceable Through Title V Permit

14. At least once every 12 months, unit shall be stack tested to demonstrate compliance with the SOx emission limit required by this permit (ppmv @3 % O2) using EPA Method 6C, Method 8 or ARB Method 100. Stack testing for SOx emissions in not required if unit was fired only on PUC quality natural during the 12 months prior to the compliance testing anniversary date. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

15. Permittee shall maintain daily record of all natural gas consumption including waste gas consumption, fuel sulfur content, calculated SOx emissions, supplier certifications and test results to show compliance with the conditions of this permit. The operator shall record daily amount and type (s) of fuel(s) combusted and all dates on which unit is fired on any non certified fuel and record specific type(s) of non certified fuel used. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit

16. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

17. This unit is fired only on gaseous fuel and has no provisions for firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

18. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-18-29 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

DRAFT

EQUIPMENT DESCRIPTION:
S-10, 62.5 MMBTU/HR THERMOTICS, NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER, AND A FLUE GAS RECIRCULATION (FGR) SYSTEM SERVED BY LO-COST H2S SCAVENGER SYSTEM AND SULFATREAT VESSELS SHARED WITH PERMIT UNITS C-1121-17, '-19 AND '-41

PERMIT UNIT REQUIREMENTS

1. Fuel consumption for the steam generator shall not exceed 1,500 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combined quantity of well vent and tank vapor recovery gases combusted within steam generators -17, -18, -19, and -41, from the four CVR systems (C-1121-38, -39, -114, & -116) and the section 32 TVR system shall not exceed 1,300,000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Only natural gas, vapor recovery gas, or a combination of natural gas and vapor recovery gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
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. Lo-Cost H2S scavenging system shall be used whenever vapor recovery gas is fired in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following limits: NOx (as NO2): 14 ppmv @ 3% O2 or 0.017 lb/MMBtu (25.5 lb/day), CO: 43 ppmv @ 3%O2 or 0.032 lb/MMBtu (48.0 lb/day), PM10: 0.0076 lb/MMBtu (11.4 lb-PM10/day), or VOC: 0.008 lb/MMBtu (12.0 lb/day). [District Rules 2201, 4201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
8. When fired on PUC quality natural gas, the SOx emissions rate shall not exceed 0.00285 lb/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
9. When fired on gases other than PUC quality natural gas, the SOx emissions rate shall not exceed 9 ppmv @ 3% O2 or 0.015 lb/MMBtu (22.8 lb/day). [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. Combined emissions of SOx, calculated as SO2, from the steam generators and the flare (C-1121-17, -18, -19, -41, & -168) shall not exceed 28,580 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The sulfur content of treated waste gas exiting the H2S Scavenger System shall be determined on a daily basis by gas detector tube sampling. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
12. Daily SOx emissions from combustion of waste gas shall be calculated based on the waste gas sulfur content as determined by gas detector tube sampling or the most recent laboratory analysis, whichever is greater. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. When source or type of gas changes, sampling for sulfur content shall be conducted within one week. A change in fuel type is defined as changing between any of the following: PUC-Quality gas, unprocessed field gas, or any field gas with any specific level of pretreatment. [District Rule 2520] Federally Enforceable Through Title V Permit

14. At least once every 12 months, unit shall be stack tested to demonstrate compliance with the SOx emission limit required by this permit (ppmv @3 % O2) using EPA Method 6C, Method 8 or ARB Method 100. Stack testing for SOx emissions in not required if unit was fired only on PUC quality natural during the 12 months prior to the compliance testing anniversary date. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

15. Permittee shall maintain daily record of all natural gas consumption including waste gas consumption, fuel sulfur content, calculated SOx emissions, supplier certifications and test results to show compliance with the conditions of this permit. The operator shall record daily amount and type (s) of fuel(s) combusted and all dates on which unit is fired on any non certified fuel and record specific type(s) of non certified fuel used. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit

16. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

17. This unit is fired only on gaseous fuel and has no provisions for firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

18. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-19-29 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

DRAFT

EQUIPMENT DESCRIPTION:
S-11, 62.5 MMBTU/HR THERMOTICS, NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER AND A FLUE GAS RECIRCULATION (FGR) SYSTEM SERVED BY LO-COST H2S SCAVENGER SYSTEM AND SULFATREAT VESSELS SHARED WITH PERMIT UNITS C-1121-17, '-18 AND '-41

PERMIT UNIT REQUIREMENTS

1. Fuel consumption for the steam generator shall not exceed 1,500 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combined quantity of well vent and tank vapor recovery gases combusted within steam generators '-17, '-18, '-19, and '-41, from the four CVR systems (C-1121-38, -39, -114, & -116) and the section 32 TVR system shall not exceed 1,300,000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Only natural gas, vapor recovery gas, or a combination of natural gas and vapor recovery gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
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. Lo-Cost H2S scavenging system shall be used whenever vapor recovery gas is fired in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following limits: NOx (as NO2): 14 ppmv @ 3% O2 or 0.017 lb/MMBtu (25.5 lb/day), CO: 43 ppmv @ 3% O2 or 0.032 lb/MMBtu (48.0 lb/day), PM10: 0.0076 lb/MMBtu (11.4 lb-PM10/day), or VOC: 0.008 lb/MMBtu (12.0 lb/day). [District Rules 2201, 4201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
8. When fired on PUC quality natural gas, the SOx emissions rate shall not exceed 0.00285 lb/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
9. When fired on gases other than PUC quality natural gas, the SOx emissions rate shall not exceed 9 ppmv @ 3% O2 or 0.015 lb/MMBtu (22.8 lb/day). [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. Combined emissions of SOx, calculated as SO2, from the steam generators and the flare (C-1121-17, -18, -19, -41, & -168) shall not exceed 28,580 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The sulfur content of treated waste gas exiting the H2S Scavenger System shall be determined on a daily basis by gas detector tube sampling. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
12. Daily SOx emissions from combustion of waste gas shall be calculated based on the waste gas sulfur content as determined by gas detector tube sampling or the most recent laboratory analysis, whichever is greater. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. When source or type of gas changes, sampling for sulfur content shall be conducted within one week. A change in fuel type is defined as changing between any of the following: PUC-Quality gas, unprocessed field gas, or any field gas with any specific level of pretreatment. [District Rule 2520] Federally Enforceable Through Title V Permit

14. At least once every 12 months, unit shall be stack tested to demonstrate compliance with the SOx emission limit required by this permit (ppmv @3 % O2) using EPA Method 6C, Method 8 or ARB Method 100. Stack testing for SOx emissions in not required if unit was fired only on PUC quality natural during the 12 months prior to the compliance testing anniversary date. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

15. Permittee shall maintain daily record of all natural gas consumption including waste gas consumption, fuel sulfur content, calculated SOx emissions, supplier certifications and test results to show compliance with the conditions of this permit. The operator shall record daily amount and type (s) of fuel(s) combusted and all dates on which unit is fired on any non certified fuel and record specific type(s) of non certified fuel used. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit

16. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

17. This unit is fired only on gaseous fuel and has no provisions for firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

18. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-22-15 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
4.0 MMBTU/HR ENGELMAN GENERAL HEATER WITH NORTH AMERICAN MODEL 5131 GAS BURNER (PEER-1-0) AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-303)

DRAFT

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
3. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
6. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line vessel or at any secondary vessel which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
7. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
9. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-23-16 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
2,235 BBL HEATER TREATER VESSEL WITH PRESSURE RELIEF VENT CONNECTED TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-304) AND PERMIT EXEMPT BURNER (NATURAL GAS-FIRED, 5.0 MMBTU/HR OR LESS)

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PERMIT UNIT REQUIREMENTS

1. This pressure vessel shall maintain working pressures sufficient to prevent organic liquid loss or VOC loss to the atmosphere at all times. [District Rule 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-24-10 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

DRAFT

EQUIPMENT DESCRIPTION:
6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #5131 GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-307)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
2. 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
3. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
5. Maximum annual heat input of the unit shall not exceed 9 billion Btu per calendar year. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
6. Fuel consumption shall not exceed 114,290 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 0.14 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0044 lb-PM10/MMBtu, 0.035 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
8. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
9. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
11. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
12. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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13. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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

16. 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 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using 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, 9.4.2] Federally Enforceable Through Title V Permit

18. Owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

19. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

21. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

22. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-25-10 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #5131 GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-308)

DRAFT

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
2. 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
3. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
5. Maximum annual heat input of the unit shall not exceed 9 billion Btu per calendar year. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
6. Fuel consumption shall not exceed 114,290 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 0.14 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0044 lb-PM10/MMBtu, 0.035 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
8. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
9. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
11. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
12. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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13. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
14. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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
16. 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 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
17. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using 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, 9.4.2] Federally Enforceable Through Title V Permit
18. Owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
20. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
21. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
22. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-26-10

EXPIRATION DATE: 12/31/2016

DRAFT

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #6121-25H GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-309)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
2. 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
3. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
5. Maximum annual heat input of the unit shall not exceed 9 billion Btu per calendar year. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
6. Fuel consumption shall not exceed 114,290 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 0.14 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0044 lb-PM10/MMBtu, 0.035 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
8. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
9. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
11. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
12. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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13. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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

16. 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 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using 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, 9.4.2] Federally Enforceable Through Title V Permit

18. Owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

19. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

21. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

22. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-33-10 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
TG-1, 52.7 MMBTU/HR ALLISON GM 501-KB5 NATURAL GAS FIRED TURBINE WITH WATER INJECTION AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM DRIVING A 4 MW ELECTRICAL GENERATOR

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PERMIT UNIT REQUIREMENTS

1. Unit shall be exclusively fired with natural gas containing no more than 1 grain of total sulfur per 100 standard cubic feet of gas. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Except during periods of startup, shutdown, and shakedown, emissions rates (three hour rolling average) shall not exceed any of the following: NOx (as NO2): 5 ppmv dry @ 15% O2, CO: 38 ppmv dry @ 15% O2. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
3. Emissions shall not exceed any of the following limits: NOx (as NO2); 46.3 lb/day, CO: 107.5 lb/day, PM10: 8.3 lb/day; SOx (as SO2): 3.6 lb/day or VOC: 2.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081 (as amended 12/16/93). [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. If this unit is not fired on 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 1070 and 40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
7. If this unit is not fired on PUC-regulated natural gas, the 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(j)(2)(i)] Federally Enforceable Through Title V Permit
8. If this unit is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM D3246 or double GC for H2S and mercaptans, and fuel H2S content - gas detection tubes calibrated for H2S or other District-approved fuel sulfur detection method(s) or device(s). [District Rule 107040 and CFR 60.335(b)(10)(2)] Federally Enforceable Through Title V Permit
9. If this unit is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Except during startup, shutdown, and reduced load periods, any one-hour period during which the average ammonia injection flowrate, as measured by the continuous monitoring system, falls outside the flowrate range as determined to demonstrate compliance shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average ammonia injection flowrate, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(j)(1)(i) and 40 CFR Part 64] Federally Enforceable Through Title V Permit

11. Permittee shall operate and maintain in calibration, to within 5% accuracy, a monitoring system which continuously measures and records the water-to-fuel ratio and fuel consumption and which correlates the water-to-fuel ratio during initial source testing with the NOx concentration in the exhaust. [District NSR Rule and Rule 4703, and 40 CFR 60.334(a) and 40 CFR Part 64] Federally Enforceable Through Title V Permit

12. Permittee shall operate a system which continuously measures and records elapsed time of turbine operation. [District Rule 4703, and 40 CFR 60.334(a) and 40 CFR Part 64] Federally Enforceable Through Title V Permit

13. Permittee shall operate and maintain in calibration a system which continuously measures and records ammonia injection flow rate, monitors ammonia pressure, and sounds an alarm if outside the acceptable operating pressure range. Ammonia injection flow rate and pressure shall be operated within the range recommended by SCR manufacturer and determined by performance tests such that the turbine maintains 95% or greater control efficiency or complies with the applicable NOx emission concentration limit. [District Rule 4703, and 40 CFR 60.334(a) and 40 CFR Part 64] Federally Enforceable Through Title V Permit

14. Gas turbine engine shall be equipped with water injection system for NOx control. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Gas turbine engine water injection rate shall be maintained at a water-to-fuel ratio documented to result in compliance with emission limits. Operator shall perform and submit an engineering performance test to demonstrate continuous compliance with emissions limits beyond the specified ratios. [District Rules 2201 and 4703, and 40 CFR Part 64] Federally Enforceable Through Title V Permit

16. If ammonia injection system is inoperative for more than 1 hour, gas turbine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Evaporative cooler shall use only fresh and filtered water. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The ammonia (NH3) emissions from the exhaust of the SCR system serving this gas turbine shall not exceed 20 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Permittee shall maintain accurate records of ammonia consumption. [District Rules 1070 and 4703, and 40 CFR Part 64] Federally Enforceable Through Title V Permit

21. Gas temperature at SCR catalyst section inlet shall be continuously monitored by operational temperature indicator. Inlet gas temperature to catalyst bed shall be maintained within range recommended by catalyst manufacturer and determined by performance tests. [District Rule 4703, and 40 CFR 60.334(f)(3) and 40 CFR Part 64] Federally Enforceable Through Title V Permit

22. The permittee shall maintain a record of the date of initial operation of this unit, fuel combusted (scf/day) on daily basis, water-to-fuel ratio, and results of ammonia injection rate monitoring from CMS. These records shall be made readily available for District inspection upon request. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

23. Startup and shutdown of the gas turbine, as defined in this permit and in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours for startup and two hours for shutdown, per occurrence. Emission concentrations subsequent to this startup period shall not exceed the limits specified in this permit except during shutdown. [District Rule 4703 and 40 CFR Subpart A 60.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. The duration of reduced load shall not exceed a time period of one hour per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit

25. Daily records of NOx and CO emission calculations during days of startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Maximum NOx (as NO2) and SOx (as SO2) emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmv-dry @ 15% O2, and 150 ppmv-dry @ 15% O2, respectively. [40 CFR 60.332(a)(2) and 60.333(a)] Federally Enforceable Through Title V Permit

27. The permittee shall monitor and record the stack concentration of NOx, CO, NH3, and O2 at least once every month in which a source test is not performed. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH3 monitoring shall be conducted utilizing gas detection tubes or a District approved equivalent method. 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 previous calendar month. [District Rule 4703] Federally Enforceable Through Title V Permit

28. If the NOx or CO concentrations corrected to 15% O2 as measured by the portable analyzer or the NH3 concentration, as measured by gas detection tubes or a District approved equivalent method, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continues to show emission limit violations after 1 hour of operation following 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 that is subject to enforcement action has occurred. 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 4703] Federally Enforceable Through Title V Permit

29. All NOx, CO, O2 and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4703] Federally Enforceable Through Title V Permit

30. The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3 and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx, CO and NH3 concentrations corrected to 15% O2, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rule 4703] Federally Enforceable Through Title V Permit

31. A source test to demonstrate compliance with NOx, CO, and NH3 emission limits, and fuel sulfur content shall be performed within 60 days after the shakedown period has been completed for this modified unit. The appropriate ammonia injection rate, fuel consumption, ammonia to fuel ratio, water to fuel ratio, and any other associated operating parameter shall be continuously monitored and recorded during this test to establish acceptable operating ranges. Selective Catalytic Reduction (SCR) 95% control efficiency may be demonstrated as an alternative to compliance with the Rule 4703 NOx emissions concentration limit. [District Rules 2201 and 4703, and 40 CFR 60.334(g), 40 CFR 60.335(b) and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. Source testing to measure exhaust gas NOx, CO, and NH3 concentrations and, if applicable, Selective Catalytic Reduction (SCR) control efficiency shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). Performance testing shall be conducted under conditions representative of normal operation. [District Rules 2520 and 4703, and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

33. The owner or operator shall provide source test information annually regarding the exhaust gas NOx and CO concentration corrected to 15% O2 (dry). [District Rule 4703] Federally Enforceable Through Title V Permit

34. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or 20, CO (ppmv) - EPA Method 10 or 10B, stack gas oxygen - EPA Method 3 or 3A or 20, fuel gas sulfur content - ASTM D1072, D4468, or D3246 or double GC for H2S and mercaptans, fuel gas HHV and LHV - ASTM D3598, D1826 or D1945, Ammonia slip - BAAQMD method ST-1B. [District Rules 1081 and 4703, and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

35. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

36. Performance testing shall be witnessed or authorized District personnel. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit

37. Permittee shall report the following emission exceedance to the District: emission rates of NOx and CO on a three-hour rolling average and NSPS emission rate on one hour average. [District Rules 1070, 2201, and 4703] Federally Enforceable Through Title V Permit

38. 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. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption for normal operation and for the startup/shutdown periods. This information may be recorded electronically. Daily entries in the operating log are not required for periods of non-operation. [District Rules 2520 and 4703] Federally Enforceable Through Title V Permit

39. Permittee shall maintain accurate records of all maintenance activities, periodic inspections, and repairs of SCR unit, water and NH3 injection systems, and their associated controller and instrumentation units. [District Rules 1070 and 4703] Federally Enforceable Through Title V Permit

40. Permittee shall comply in full with Rule 4001 (New Source Performance Standards, 40 CFR 60 Subpart GG) requirements, including notification, recordkeeping and monitoring requirements. [District Rule 4001] Federally Enforceable Through Title V Permit

41. The owner or operator shall maintain all records for a period of five years from the date of entry and shall make such records available to the APCO upon request. [District Rules 1080, 2201, and 4703, 6.2.4] Federally Enforceable Through Title V Permit

42. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Fresno County Rule 406 as of the date of permit issuance. 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 applicable requirements: 40 CFR 60.332(a)(2), (c), and (f), 60.333 (a) and (b); 60.334(a), (c)(1), (c)(2), and (c)(3), and 60.335(b), (c)(2), (c)(3), and (d); District Rule 4703 (as amended 12/19/02), Sections 5.1.2, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rule 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-34-10 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
TG-1, 52.7 MMBTU/HR ALLISON GM 501-KB5 NATURAL GAS FIRED TURBINE WITH WATER INJECTION AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM DRIVING A 4 MW ELECTRICAL GENERATOR

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PERMIT UNIT REQUIREMENTS

1. Unit shall be exclusively fired with natural gas containing no more than 1 grain of total sulfur per 100 standard cubic feet of gas. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Except during periods of startup, shutdown, and shakedown, emissions rates (three hour rolling average) shall not exceed any of the following: NOx (as NO2): 5 ppmv dry @ 15% O2, CO: 38 ppmv dry @ 15% O2. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
3. Emissions shall not exceed any of the following limits: NOx (as NO2); 46.3 lb/day, CO: 107.5 lb/day, PM10: 8.3 lb/day; SOx (as SO2): 3.6 lb/day or VOC: 2.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081 (as amended 12/16/93). [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. If this unit is not fired on 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 1070 and 40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
7. If this unit is not fired on PUC-regulated natural gas, the 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(j)(2)(i)] Federally Enforceable Through Title V Permit
8. If this unit is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM D3246 or double GC for H2S and mercaptans, and fuel H2S content - gas detection tubes calibrated for H2S or other District-approved fuel sulfur detection method(s) or device(s). [District Rule 1070 and 40 CFR 60.335(b)(10)(2)] Federally Enforceable Through Title V Permit
9. If this unit is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Except during startup, shutdown, and reduced load periods, any one-hour period during which the average ammonia injection flowrate, as measured by the continuous monitoring system, falls outside the flowrate range as determined to demonstrate compliance shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average ammonia injection flowrate, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(j)(1)(i) and 40 CFR Part 64] Federally Enforceable Through Title V Permit
11. Permittee shall operate and maintain in calibration, to within 5% accuracy, a monitoring system which continuously measures and records the water-to-fuel ratio and fuel consumption and which correlates the water-to-fuel ratio during initial source testing with the NOx concentration in the exhaust. [District NSR Rule and Rule 4703, and 40 CFR 60.334(a) and 40 CFR Part 64] Federally Enforceable Through Title V Permit
12. Permittee shall operate a system which continuously measures and records elapsed time of turbine operation. [District Rule 4703, and 40 CFR 60.334(a) and 40 CFR Part 64] Federally Enforceable Through Title V Permit
13. Permittee shall operate and maintain in calibration a system which continuously measures and records ammonia injection flow rate, monitors ammonia pressure, and sounds an alarm if outside the acceptable operating pressure range. Ammonia injection flow rate and pressure shall be operated within the range recommended by SCR manufacturer and determined by performance tests such that the turbine maintains 95% or greater control efficiency or complies with the applicable NOx emission concentration limit. [District Rule 4703, and 40 CFR 60.334(a) and 40 CFR Part 64] Federally Enforceable Through Title V Permit
14. Gas turbine engine shall be equipped with water injection system for NOx control. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Gas turbine engine water injection rate shall be maintained at a water-to-fuel ratio documented to result in compliance with emission limits. Operator shall perform and submit an engineering performance test to demonstrate continuous compliance with emissions limits beyond the specified ratios. [District Rules 2201 and 4703, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
16. If ammonia injection system is inoperative for more than 1 hour, gas turbine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Evaporative cooler shall use only fresh and filtered water. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District Rule 1081] Federally Enforceable Through Title V Permit
19. The ammonia (NH3) emissions from the exhaust of the SCR system serving this gas turbine shall not exceed 20 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Permittee shall maintain accurate records of ammonia consumption. [District Rules 1070 and 4703, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
21. Gas temperature at SCR catalyst section inlet shall be continuously monitored by operational temperature indicator. Inlet gas temperature to catalyst bed shall be maintained within range recommended by catalyst manufacturer and determined by performance tests. [District Rule 4703, and 40 CFR 60.334(f)(3) and 40 CFR Part 64] Federally Enforceable Through Title V Permit
22. The permittee shall maintain a record of the date of initial operation of this unit, fuel combusted (scf/day) on daily basis, water-to-fuel ratio, and results of ammonia injection rate monitoring from CMS. These records shall be made readily available for District inspection upon request. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
23. Startup and shutdown of the gas turbine, as defined in this permit and in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours for startup and two hours for shutdown, per occurrence. Emission concentrations subsequent to this startup period shall not exceed the limits specified in this permit except during shutdown. [District Rule 4703 and 40 CFR Subpart A 60.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. The duration of reduced load shall not exceed a time period of one hour per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit

25. Daily records of NOx and CO emission calculations during days of startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Maximum NOx (as NO2) and SOx (as SO2) emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmv-dry @ 15% O2, and 150 ppmv-dry @ 15% O2, respectively. [40 CFR 60.332(a)(2) and 60.333(a)] Federally Enforceable Through Title V Permit

27. The permittee shall monitor and record the stack concentration of NOx, CO, NH3, and O2 at least once every month in which a source test is not performed. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH3 monitoring shall be conducted utilizing gas detection tubes or a District approved equivalent method. 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 previous calendar month. [District Rule 4703] Federally Enforceable Through Title V Permit

28. If the NOx or CO concentrations corrected to 15% O2 as measured by the portable analyzer or the NH3 concentration, as measured by gas detection tubes or a District approved equivalent method, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continues to show emission limit violations after 1 hour of operation following 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 that is subject to enforcement action has occurred. 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 4703] Federally Enforceable Through Title V Permit

29. All NOx, CO, O2 and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4703] Federally Enforceable Through Title V Permit

30. The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3 and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx, CO and NH3 concentrations corrected to 15% O2, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rule 4703] Federally Enforceable Through Title V Permit

31. A source test to demonstrate compliance with NOx, CO, and NH3 emission limits, and fuel sulfur content shall be performed within 60 days after the shakedown period has been completed for this modified unit. The appropriate ammonia injection rate, fuel consumption, ammonia to fuel ratio, water to fuel ratio, and any other associated operating parameter shall be continuously monitored and recorded during this test to establish acceptable operating ranges. Selective Catalytic Reduction (SCR) 95% control efficiency may be demonstrated as an alternative to compliance with the Rule 4703 NOx emissions concentration limit. [District Rules 2201 and 4703, 40 CFR 60.334(g), 40 CFR 60.335(b) and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. Source testing to measure exhaust gas NOx, CO, and NH3 concentrations and, if applicable, Selective Catalytic Reduction (SCR) control efficiency shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). Performance testing shall be conducted under conditions representative of normal operation. [District Rules 2520 and 4703, and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

33. The owner or operator shall provide source test information annually regarding the exhaust gas NOx and CO concentration corrected to 15% O2 (dry). [District Rule 4703] Federally Enforceable Through Title V Permit

34. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or 20, CO (ppmv) - EPA Method 10 or 10B, stack gas oxygen - EPA Method 3 or 3A or 20, fuel gas sulfur content - ASTM D1072, D4468, or D3246 or double GC for H2S and mercaptans, fuel gas HHV and LHV - ASTM D3598, D1826 or D1945, Ammonia slip - BAAQMD method ST-1B. [District Rules 1081 and 4703, and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

35. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

36. Performance testing shall be witnessed or authorized District personnel. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit

37. Permittee shall report the following emission exceedance to the District: emission rates of NOx and CO on a three-hour rolling average and NSPS emission rate on one hour average. [District Rules 1070, 2201, and 4703] Federally Enforceable Through Title V Permit

38. 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. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption for normal operation and for the startup/shutdown periods. This information may be recorded electronically. Daily entries in the operating log are not required for periods of non-operation. [District Rules 2520 and 4703] Federally Enforceable Through Title V Permit

39. Permittee shall maintain accurate records of all maintenance activities, periodic inspections, and repairs of SCR unit, water and NH3 injection systems, and their associated controller and instrumentation units. [District Rules 1070 and 4703] Federally Enforceable Through Title V Permit

40. Permittee shall comply in full with Rule 4001 (New Source Performance Standards, 40 CFR 60 Subpart GG) requirements, including notification, recordkeeping and monitoring requirements. [District Rule 4001] Federally Enforceable Through Title V Permit

41. The owner or operator shall maintain all records for a period of five years from the date of entry and shall make such records available to the APCO upon request. [District Rules 1080, 2201, and 4703, 6.2.4] Federally Enforceable Through Title V Permit

42. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Fresno County Rule 406 as of the date of permit issuance. 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 applicable requirements: 40 CFR 60.332(a)(2), (c), and (f), 60.333 (a) and (b); 60.334(a), (c)(1), (c)(2), and (c)(3), and 60.335(b), (c)(2), (c)(3), and (d); District Rule 4703 (as amended 12/19/02), Sections 5.1.2, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rule 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-38-9 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
CVR-1: 155 STEAM-DRIVE WELLS SERVED BY 170 HP CASING VAPOR RECOVERY SYSTEM WITH HEAT EXCHANGER E-100, FIN FAN COOLER E-110, SEPARATOR V-100, CONDENSATE PUMPS P-100 AND P-101, AND GAS COMPRESSOR SKID WITH COMPRESSOR C-10, FIN FAN COOLER E-10, SEPARATORS V-10 AND V-11 AND CONDENSATE PUMP P-10.

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PERMIT UNIT REQUIREMENTS

1. If the well casing vent is sealed or "shut-in", then the produced oil is to be routed only to tanks served by the vapor recovery system under permit #C-1121-45 with 99% control efficiency. [District NSR Rule and Rule 4401, 5.2] Federally Enforceable Through Title V Permit
2. VOC emissions shall not exceed 2.237 lb VOC/day per well. [District NSR Rule] Federally Enforceable Through Title V Permit
3. {4272} Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit
4. There shall be no components with a major liquid leak as defined in Section 3.20.2 of Rule 4401. [District Rule 4401, 5.2.2.2] Federally Enforceable Through Title V Permit
5. There shall be no components with a gas leak of greater than 50,000 ppmv. [District Rule 4401, 5.2.2.3] Federally Enforceable Through Title V Permit
6. Unless otherwise specified in Section 5.4, an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
7. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit
8. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
9. Compliance with the control efficiency testing specification listed in the TEOR System Conditions have been waived by exhausting non-condensibles into a working steam generator firebox or flare for combustion. A permit shield is granted from the requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
10. {1769} The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-39-12 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

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EQUIPMENT DESCRIPTION:
CVR-2: 213 STEAM-DRIVE WELLS SERVED BY 140 HP CASING VAPOR RECOVERY SYSTEM WITH HEAT EXCHANGER E-200, FIN-FAN COOLER E-210, SEPARATOR V-200, CONDENSATE PUMPS P-200 & P-201, AND GAS COMPRESSOR SKID WITH COMPRESSOR C-20, FIN-FAN COOLER E-20, SEPARATORS V-20 & V-21, AND CONDENSATE PUMP P-20 AND 75 HP VAPOR COMPRESSOR SKID WITH OUTLET FIN-FAN COOLER, GAS LIQUID SEPARATORS, AND CONDENSATE PUMPS. RECOVERED VAPOR LINE CONNECTED TO RECOVERED VAPOR LINES OF PERMIT UNITS C-1121-116 & C-1121-114

PERMIT UNIT REQUIREMENTS

1. Non-condensibles shall be exhausted into a working steam generator firebox or flare for combustion. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. [District Rule 4401] Federally Enforceable Through Title V Permit
3. If the well casing vent is sealed or "shut-in", then the produced oil is to be routed only to tanks served by the vapor recovery system under permit #C-1121-45 with 99% control efficiency. [District NSR Rule and Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit
4. Permittee shall maintain a well roster listing all wells connected to the well vent vapor recovery system and which well casing vents are shut-in. The well roster shall be kept on site and shall be made available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
5. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
6. {4278} An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.7.3] Federally Enforceable Through Title V Permit
7. {4272} Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit
8. {4273} An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. Permittee shall maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that 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 an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit

10. VOC content of well vent vapor gas shall not exceed 10% by weight. If the VOC content of the well vent vapor gas is less than 10% by weight for 8 consecutive quarterly samplings per District approved plan, sampling frequency shall only be required annually. If an annual source test fails to show compliance, quarterly testing shall resume. [District Rules 2201 and 4401, 4.9] Federally Enforceable Through Title V Permit

11. The annual inspection requirements of Section 5.8.1 through 5.8.5 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10 wt. %) or less, as determined by the test methods in Section 6.3.5 of Rule 4401. [District Rule 4401, 4.9] Federally Enforceable Through Title V Permit

12. {4309} 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 4401 6.3.1] Federally Enforceable Through Title V Permit

13. {4312} The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401 6.3.5] Federally Enforceable Through Title V Permit

14. {4304} An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401 6.2.1] Federally Enforceable Through Title V Permit

15. {4305} If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit

16. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted annually 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 instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401 6.3.3] Federally Enforceable Through Title V Permit

17. {4276} An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401 5.7.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

18. {4285} An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to monitor component, or a critical component. [District Rule 4401 5.9.1] Federally Enforceable Through Title V Permit

19. {4286} An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.2] Federally Enforceable Through Title V Permit

20. {4287} An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.9.3] Federally Enforceable Through Title V Permit

21. {4288} Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

22. {4289} The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

23. {4290} The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.5] Federally Enforceable Through Title V Permit

24. {4291} The time of the initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.6] Federally Enforceable Through Title V Permit

25. {4292} If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component 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, whichever comes earlier. [District Rule 4401 5.9.7] Federally Enforceable Through Title V Permit

26. {4274} An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

27. {4275} An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 3 of Rule 4401. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

28. {4277} 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 with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.7.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. {4308} An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.10 of Rule 4401. [District Rule 4401 6.2.5] Federally Enforceable Through Title V Permit

30. {4302} The results of gauge tank TVP testing conducted pursuant to Section 6.2.5 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401 6.1.10] Federally Enforceable Through Title V Permit

31. {4303} An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.11] Federally Enforceable Through Title V Permit

32. Permittee shall maintain a written record of VOC content of the gas (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

33. {4293} The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401 6.1.1] Federally Enforceable Through Title V Permit

34. {4295} An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit

35. {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

36. {4298} Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401 6.1.6] Federally Enforceable Through Title V Permit

37. {4299} An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit

38. {4300} Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit

39. All records required by this permit shall be maintained and retained on-site for a minimum of five (5) years and made available for District, ARB, and EPA inspection upon request. [District Rules 2520, 9.5.2 and 4401] Federally Enforceable Through Title V Permit

40. Compliance with permit Condition 4 of this permit (or Condition 2 on the Title V permit after Conditions 1 and 2 are removed) shall be deemed compliance with efficiency specification which have been waived by exhausting non-condensibles into a working steam generator firebox or flare for combustion. A permit shield is granted from there requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. {1769} The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-41-29 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

DRAFT

EQUIPMENT DESCRIPTION:
S-12, 62.5 MMBTU/HR THERMOTICS, NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR (S-12) WITH COEN QLN-ULN BURNER, FLUE GAS RECIRCULATION SERVED BY LO-COST H2S SCAVENGER SYSTEM AND SULFATREAT VESSELS SHARED WITH PERMIT UNITS C- 1121-17, '-18 AND '-19

PERMIT UNIT REQUIREMENTS

1. Fuel consumption for the steam generator shall not exceed 1,500 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combined quantity of well vent and tank vapor recovery gases combusted within steam generators '-17, '-18, '-19, and '-41, from the four CVR systems (C-1121-38, -39, -114, & -116) and the section 32 TVR system shall not exceed 1,300,000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Only natural gas, vapor recovery gas, or a combination of natural gas and vapor recovery gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
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. Lo-Cost H2S scavenging system shall be used whenever vapor recovery gas is fired in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following limits: NOx (as NO2): 14 ppmv @ 3% O2 or 0.017 lb/MMBtu (25.5 lb/day), CO: 43 ppmv @ 3%O2 or 0.032 lb/MMBtu (48.0 lb/day), PM10: 0.0076 lb/MMBtu (11.4 lb-PM10/day), or VOC: 0.008 lb/MMBtu (12.0 lb/day). [District Rules 2201, 4201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
8. When fired on PUC quality natural gas, the SOx emissions rate shall not exceed 0.00285 lb/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
9. When fired on gases other than PUC quality natural gas, the SOx emissions rate shall not exceed 9 ppmv @ 3% O2 or 0.015 lb/MMBtu (22.8 lb/day). [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. Combined emissions of SOx, calculated as SO2, from the steam generators and the flare (C-1121-17, -18, -19, -41, & -168) shall not exceed 28,580 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The sulfur content of treated waste gas exiting the H2S Scavenger System shall be determined on a daily basis by gas detector tube sampling. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
12. Daily SOx emissions from combustion of waste gas shall be calculated based on the waste gas sulfur content as determined by gas detector tube sampling or the most recent laboratory analysis, whichever is greater. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. When source or type of gas changes, sampling for sulfur content shall be conducted within one week. A change in fuel type is defined as changing between any of the following: PUC-Quality gas, unprocessed field gas, or any field gas with any specific level of pretreatment. [District Rule 2520] Federally Enforceable Through Title V Permit

14. At least once every 12 months, unit shall be stack tested to demonstrate compliance with the SOx emission limit required by this permit (ppmv @3 % O2) using EPA Method 6C, Method 8 or ARB Method 100. Stack testing for SOx emissions in not required if unit was fired only on PUC quality natural during the 12 months prior to the compliance testing anniversary date. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

15. Permittee shall maintain daily record of all natural gas consumption including waste gas consumption, fuel sulfur content, calculated SOx emissions, supplier certifications and test results to show compliance with the conditions of this permit. The operator shall record daily amount and type (s) of fuel(s) combusted and all dates on which unit is fired on any non certified fuel and record specific type(s) of non certified fuel used. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit

16. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

17. This unit is fired only on gaseous fuel and has no provisions for firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

18. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-45-14 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

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EQUIPMENT DESCRIPTION:
5,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK WITH 60 HP SHARED TANK VAPOR CONTROL SYSTEM SERVING TANKS C-1121-46, -79, -82 THROUGH 85, -87 THROUGH -90; HEATER TREATERS C-1121-22 THROUGH -26; 2 PRESSURE VESSELS (V200 & V350); AND 6 FWKO VESSELS (V301, V302, V311, V312, V313, AND V336) BLANKETED WITH TEOR AND CVR WASTE GAS (T-317)

PERMIT UNIT REQUIREMENTS

1. 32 DEHY VAPOR RECOVERY CONDITION: The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The efficiency of any VOC destruction device shall be measured by EPA Method 18. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. Non-condensibles shall be exhausted into a working steam generator firebox or flare for combustion. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Tank venting as due to maintenance activities, breakdowns, or power outages shall not exceed eight (8) hours per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 32 DEHY VAPOR RECOVERY CONDITION: All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
9. 32 DEHY VAPOR RECOVERY CONDITION: Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Compressor suction and knockout drum liquids shall be piped only to vapor-controlled tanks. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 32 DEHY VAPOR RECOVERY CONDITION: Tank pressure/vacuum valve (Varec) or pressure relief valve (PRV) shall be inspected on an annual basis. During the inspections, the Varec or PRV can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve or PRV. [District Rules 2080 and 2520] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The pressure transmitters shall be inspected and maintained in good operating condition. The inspections may be conducted, as needed, on a quarterly basis. Replacing and repairing the pressure transmitters shall not exceed one hour per day. [District Rule 2080] Federally Enforceable Through Title V Permit

13. 32 DEHY INSPECTION CONDITION: All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit

14. 32 DEHY INSPECTION CONDITION: A facility operator, upon detection of a leaking component, 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] Federally Enforceable Through Title V Permit

15. 32 DEHY INSPECTION CONDITION: An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit

16. 32 DEHY INSPECTION CONDITION: Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit

17. 32 DEHY INSPECTION CONDITION: 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520] Federally Enforceable Through Title V Permit

18. 32 DEHY INSPECTION CONDITION: If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520] Federally Enforceable Through Title V Permit

19. 32 DEHY INSPECTION CONDITION: Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520] Federally Enforceable Through Title V Permit

20. 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 Rule 4623] Federally Enforceable Through Title V Permit

21. The operator shall ensure that the vapor control system is functional and is operating at all times except during periods of vapor control system maintenance or power outages. [District Rule 2520] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. 32 DEHY CLEANING CONDITION: This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

23. 32 DEHY CLEANING CONDITION: Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

24. 32 DEHY CLEANING CONDITION: Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. 32 DEHY CLEANING CONDITION: Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

26. 32 DEHY CLEANING CONDITION: Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

27. 32 DEHY CLEANING CONDITION: The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

28. 32 DEHY CLEANING CONDITION: Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

29. 32 DEHY CLEANING CONDITION: Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

30. 32 DEHY CLEANING CONDITION: Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

31. 32 DEHY CLEANING CONDITION: Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for District inspection upon request for a period of at least five years. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District Rule 2201] Federally Enforceable Through Title V Permit

34. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

35. 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 CARB and US EPA, shall be used to determine the TVP of crude oil with an API gravity of 26 degrees or less, or for any API gravity that is specified in this test method. [District Rule 4623] Federally Enforceable Through Title V Permit

36. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

37. This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

38. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

39. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka, and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

40. Compliance with the conditions in this permit shall be deemed compliance with efficiency specification which have been waived by exhausting non-condensibles into a working steam generator firebox or flare for combustion. A permit shield is granted from there requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-46-7 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
5,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK SERVED BY A SHARED VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (T-318)

DRAFT

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
3. 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 Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
5. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
8. {1742} This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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
9. {1743} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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
10. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-72-10 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
33,293 GAL FWKO PRESSURE VESSEL USED TO SEPARATE PRODUCED OIL FROM WATER SERVED BY A PRESSURE RELIEF VALVE TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-301)

DRAFT

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
2. 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
3. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
8. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
10. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-73-10 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

DRAFT

EQUIPMENT DESCRIPTION:
33,293 GAL FWKO PRESSURE VESSEL USED TO SEPARATE PRODUCED OIL FROM WATER SERVED BY A PRESSURE RELIEF VALVE TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-302)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
2. 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
3. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
8. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
10. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-74-5

EXPIRATION DATE: 12/31/2016

DRAFT

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
#T-1, 500 BBL BAKER TANK USED TO STORE BRINE OR OIL AND WATER FROM OIL PRODUCTION

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to operate at Section 32, T19S, R15E and Section 14, T20S, R14E. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Unit shall not be located within 1,000 feet of any K-12 school. [CH&SC 42301.6]
3. Permittee shall notify District Compliance Division of each location at which the unit 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. {2587} True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
5. {2588} Permittee shall conduct True Vapor Pressure (TVP) 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
6. {2589} 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
7. {2590} For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
8. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
10. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

12. The operator shall keep accurate records of types, storage temperature and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 4623, Section 6.1] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-77-4 **EXPIRATION DATE:** 12/31/2016

SECTION: 26 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
#T-103, 3,000 BBL (126,000 GAL) STOCK TANK (LUBE SIDE). DIAMETER - 29.7 FEET. COLOR - TAN/BEIGE

DRAFT

PERMIT UNIT REQUIREMENTS

1. {2587} True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. {2588} Permittee shall conduct True Vapor Pressure (TVP) 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
3. {2589} 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. {2590} For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The operator shall keep accurate records of types, storage temperature and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 4623, Section 6.1] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-78-4

EXPIRATION DATE: 12/31/2016

DRAFT

SECTION: 26 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
#T-104, 3000 BBL (126,000 GAL) STOCK TANK (REFINED SIDE). DIAMETER - 29.7 FEET. COLOR - TAN/BEIGE

PERMIT UNIT REQUIREMENTS

1. {2587} True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. {2588} Permittee shall conduct True Vapor Pressure (TVP) 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
3. {2589} 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. {2590} For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-79-7

EXPIRATION DATE: 12/31/2016

DRAFT

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
10,000 BBL (420,000 GALLON) STOCK TANK WITH PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (ZONE 1, T-316)

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
3. 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 Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
5. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
8. {1742} This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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
9. {1743} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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
10. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-82-9

EXPIRATION DATE: 12/31/2016

DRAFT

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
2,800 BBL SKIM TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-320)

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
3. 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 Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
5. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
8. {1742} This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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
9. {1743} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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
10. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-83-9 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
2,800 BBL SKIM TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-321)

DRAFT

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
3. 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 Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
5. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
8. {1742} This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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
9. {1743} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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
10. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-84-9 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
250 BBL DRAIN TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-323)

DRAFT

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
3. 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 Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
5. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
8. {1742} This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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
9. {1743} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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
10. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-85-9 **EXPIRATION DATE:** 12/31/2016

DRAFT

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
250 BBL DRAIN TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-324)

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
3. 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 Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
5. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
8. {1742} This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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
9. {1743} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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
10. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-87-9 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
400 BBL DISPOSAL TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-322)

DRAFT

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
3. 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 Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
5. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
8. {1742} This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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
9. {1743} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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
10. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-88-7

EXPIRATION DATE: 12/31/2016

DRAFT

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
3,000 BBL WATER CLARIFIER TANK SERVED BY TANK VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (T-400)

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
3. 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 Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
5. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
8. {1742} This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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
9. {1743} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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
10. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-89-7

EXPIRATION DATE: 12/31/2016

DRAFT

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
5,000 BBL FILTERED WATER TANK SERVED BY TANK VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (T-600)

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
3. 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 Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
5. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
8. {1742} This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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
9. {1743} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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
10. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-90-7

EXPIRATION DATE: 12/31/2016

DRAFT

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
5,000 BBL SOFT WATER TANK SERVED BY TANK VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (T-810)

PERMIT UNIT REQUIREMENTS

1. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
2. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
3. 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 Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
5. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
8. {1742} This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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
9. {1743} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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
10. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-91-8

EXPIRATION DATE: 12/31/2016

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SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
25,912 GAL WATER CLARIFIER PRESSURE VESSEL SERVED BY A PRESSURE REGULATOR VENTED TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-200)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
3. 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 Rule 4623] Federally Enforceable Through Title V Permit
4. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
8. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
10. {1742} This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. {1743} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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

12. This unit is subject to 32 Dehy Vapor Recovery, Inspection, and Tank Cleaning Conditions specified in permit C-1121-45. Deviations from a standard condition shall be reported under the applicable condition in C-1121-45. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-93-3

EXPIRATION DATE: 12/31/2016

DRAFT

EQUIPMENT DESCRIPTION:
20 UNCONTROLLED CYCLIC/STEAM DRIVE WELLS

PERMIT UNIT REQUIREMENTS

1. Label each uncontrolled steam drive well for identification. [District Rule 1070] Federally Enforceable Through Title V Permit
2. The wells shall be located more than 1000 feet from an existing well vent vapor control system. [District Rule 4401] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-100-10 **EXPIRATION DATE:** 12/31/2016

SECTION: 1 **TOWNSHIP:** 20S **RANGE:** 14E

EQUIPMENT DESCRIPTION:
TRICO-SUPERIOR HEATER TREATER, HT-658, WITH AN UNCONTROLLED 5,000 BBL VESSEL AND PERMIT-EXEMPT BURNER (LESS THAN 5 MMBTU/HR, PEER-4-0)

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PERMIT UNIT REQUIREMENTS

1. 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 Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-101-10 **EXPIRATION DATE:** 12/31/2016

SECTION: 1 **TOWNSHIP:** 20S **RANGE:** 14E

EQUIPMENT DESCRIPTION:
HYDROTEK HEATER TREATER, HT-804, AND WITH AN UNCONTROLLED 5,000 BBL VESSEL AND PERMIT-EXEMPT BURNER (LESS THAN 5 MMBTU/HR, PEER-2-0)

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PERMIT UNIT REQUIREMENTS

1. 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 Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-105-10 **EXPIRATION DATE:** 12/31/2016

SECTION: 31 **TOWNSHIP:** 19S **RANGE:** 15E

DRAFT

EQUIPMENT DESCRIPTION:
TRICO-SUPERIOR HEATER TREATER, HT-659, WITH AN UNCONTROLLED 5,000 BBL VESSEL AND PERMIT-EXEMPT BURNER (LESS THAN 5 MMBTU/HR, PEER-3-0)

PERMIT UNIT REQUIREMENTS

1. 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 Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-106-10 **EXPIRATION DATE:** 12/31/2016

SECTION: 31 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
HYDROTEK HEATER TREATER, HT-808, WITH AN UNCONTROLLED 5,000 BBL VESSEL AND PERMIT-EXEMPT BURNER (LESS THAN 5 MMBTU/HR, PEER-5-0)

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PERMIT UNIT REQUIREMENTS

1. 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 Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-114-10 **EXPIRATION DATE:** 12/31/2016

SECTION: 7 **TOWNSHIP:** 20S **RANGE:** 14E

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EQUIPMENT DESCRIPTION:
MS-714, TEOR OPERATION SERVING 184 WELLS UTILIZING; A NORTH PENN ZEIR CVR SYSTEM WITH TWO CONDENSATE KO VESSELS, A CONDENSATE KO DRUM, TWO COMPRESSOR, TWO FIN FAN EXCHANGER AND CONNECTED TO CASING VAPOR RECOVERY SYSTEMS C-1121-39 & C-1121-116

PERMIT UNIT REQUIREMENTS

1. {4272} Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit
2. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
3. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. [District Rule 4401, 5.1 and 5.2] Federally Enforceable Through Title V Permit
4. An operator shall not operate a steam-enhanced crude oil production well unless either of the following two conditions are met: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids is connected to a VOC collection and control system as defined in Section 3.0 of this Rule or 2) the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit
5. There shall be no open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, 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 lines. 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 4401, 5.2.2.1] Federally Enforceable Through Title V Permit
6. There shall be no components with a major liquid leak as defined in Section 3.20.2 of Rule 4401. [District Rule 4401, 5.2.2.2] Federally Enforceable Through Title V Permit
7. There shall be no components with a gas leak of greater than 50,000 ppmv. [District Rule 4401, 5.2.2.3] Federally Enforceable Through Title V Permit
8. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

9. No leaking components (as defined in Section 5.2.2 of Rule 4401) may be used unless they have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

10. Each hatch shall be closed at all times except during attended repair, replacement, or maintenance operations, providing such activities are done as expeditiously as possible with minimal spillage or material and VOC emissions into the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

11. The operator shall comply with the requirements of Section 6.7 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

12. Unless otherwise specified in Section 5.4, an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

13. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

14. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

15. An operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: 1) An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. 2) Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

16. The operator shall also perform the following inspections: 1) An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. 2) An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service, and 3) Except for PRDs subject to the requirements of Section 5.8.4.1 of this Rule, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

17. Components located in unsafe areas shall be inspected and repaired at the next process unit turnaround and inaccessible components shall be inspected at least annually. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit

18. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

19. Upon detection of a leak, an operator shall affix a readily visible weatherproof tag to that leaking component that includes the following information: 1) The date and time of leak detection; 2) The date and time of the leak measurement; 3) For a gaseous leak, the leak concentration in ppmv; 4) For a liquid leak, whether it is a major or minor liquid leak; and 5) Whether the component is an essential component, and unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

20. The tag shall remain affixed to the leaky component until all the following requirements are met: 1) The component is repaired or replaced, 2) The component is re-inspected as set forth in Section 6.3, and 3) The component is found to be in compliance with this Rule. [District Rule 4401, 5.5.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

22. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the following three requirements as soon as practicable but not later than the time period specified in Table 4: 1) Repair or replace the leaking component, 2) Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or 3) Remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

23. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

24. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

25. The time of the initial leak detection shall be the start of the repair period specified in Table 3. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

26. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component 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, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

27. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

28. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

29. The operator of any steam-enhanced crude oil production well shall maintain an inspection log pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

30. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

31. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

32. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

33. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

35. 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 4401, 6.3.1] Federally Enforceable Through Title V Permit

36. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

37. Leak inspection, other than audio-visual, and 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 instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

38. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

39. The operator shall maintain an inspection log in which the operator records at least all of the following for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type, 2) The location, type and name or description of each leaking component and description of any unit where the leaking component is found, 3) The date of leak detection and the method of leak detection, 4) For gaseous leaks, the leak concentration in ppmv and, for liquids leaks, whether the leak is major or minor, 5) The date of repair, replacement or removal from operation of leaking components, 6) The identity and location of essential components and critical components as defined in this Rule, found leaking, that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, 7) The methods 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 1 year after detection, whichever comes earlier, 8) The date or re-inspection and the leak concentration in ppmv after the component is repaired or replaced, 9) The inspectors name, business mailing address, and business telephone number, and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

40. The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit

41. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

43. Compliance with permit Condition 3 on the Title V permit shall be deemed compliance with efficiency specification which have been waived by exhausting non-condensibles into a working steam generator firebox or flare for combustion. A permit shield is granted from there requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

45. Annual performance tests for hydrocarbon must be conducted and reported in accordance with the test methods set for the in 40 CFR 60, Part 60.8 and Appendix A. Performance tests for hydrocarbon shall be conducted using procedures approved in advance by the EPA in writing. The EPA and APCO must be notified in writing at least 30 day prior to conduction such tests. [PSD 4-4-8, SJ77-45 condition IX.H.1 and IXH.2] Federally Enforceable Through Title V Permit

46. Non-condensibles shall be exhausted into a working steam generator firebox or flare for combustion. [District NSR Rule] Federally Enforceable Through Title V Permit

47. VOC emissions shall not exceed 2.222 lb VOC/day per well. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-116-10 **EXPIRATION DATE:** 12/31/2016

SECTION: 31 **TOWNSHIP:** 19S **RANGE:** 15E

DRAFT

EQUIPMENT DESCRIPTION:
MS-717, TEOR OPERATION SERVING 240 WELLS WITH VAPOR CONTROL SYSTEM INCLUDING CONDENSATE KO DRUM AND CONDENSATE PUMP AND RECOVERED VAPOR LINE CONNECTED TO RECOVERED VAPOR LINES OF PERMIT UNITS C-1121-39 AND C-1121-114

PERMIT UNIT REQUIREMENTS

1. Non-condensibles shall be exhausted into a working steam generator firebox or flare for combustion. [District NSR Rule] Federally Enforceable Through Title V Permit
2. VOC emissions shall not exceed 2.222 lb VOC/day per well. [District NSR Rule] Federally Enforceable Through Title V Permit
3. {4272} Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit
4. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
5. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. [District Rule 4401, 5.1 and 5.2] Federally Enforceable Through Title V Permit
6. An operator shall not operate a steam-enhanced crude oil production well unless either of the following two conditions are met: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids is connected to a VOC collection and control system as defined in Section 3.0 of this Rule or 2) the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit
7. There shall be no open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, 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 lines. 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 4401, 5.2.2.1] Federally Enforceable Through Title V Permit
8. There shall be no components with a major liquid leak as defined in Section 3.20.2 of Rule 4401. [District Rule 4401, 5.2.2.2] Federally Enforceable Through Title V Permit
9. There shall be no components with a gas leak of greater than 50,000 ppmv. [District Rule 4401, 5.2.2.3] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
11. No leaking components (as defined in Section 5.2.2 of Rule 4401) may be used unless they have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
12. Each hatch shall be closed at all times except during attended repair, replacement, or maintenance operations, providing such activities are done as expeditiously as possible with minimal spillage or material and VOC emissions into the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit
13. The operator shall comply with the requirements of Section 6.7 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit
14. Unless otherwise specified in Section 5.4, an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
15. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit
16. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit
17. An operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: 1) An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. 2) Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit
18. The operator shall also perform the following inspections: 1) An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. 2) An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service, and 3) Except for PRDs subject to the requirements of Section 5.8.4.1 of this Rule, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit
19. Components located in unsafe areas shall be inspected and repaired at the next process unit turnaround and inaccessible components shall be inspected at least annually. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit
20. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. Upon detection of a leak, an operator shall affix a readily visible weatherproof tag to that leaking component that includes the following information: 1) The date and time of leak detection; 2) The date and time of the leak measurement; 3) For a gaseous leak, the leak concentration in ppmv; 4) For a liquid leak, whether it is a major or minor liquid leak; and 5) Whether the component is an essential component, and unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

22. The tag shall remain affixed to the leaky component until all the following requirements are met: 1) The component is repaired or replaced, 2) The component is re-inspected as set forth in Section 6.3, and 3) The component is found to be in compliance with this Rule. [District Rule 4401, 5.5.2] Federally Enforceable Through Title V Permit

23. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

24. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the following three requirements as soon as practicable but not later than the time period specified in Table 4: 1) Repair or replace the leaking component, 2) Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or 3) Remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

25. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

26. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

27. The time of the initial leak detection shall be the start of the repair period specified in Table 3. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

28. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component 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, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

29. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

30. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

31. The operator of any steam-enhanced crude oil production well shall maintain an inspection log pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

32. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

33. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

35. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

36. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

37. 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 4401, 6.3.1] Federally Enforceable Through Title V Permit

38. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

39. Leak inspection, other than audio-visual, and 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 instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

40. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. The operator shall maintain an inspection log in which the operator records at least all of the following for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type, 2) The location, type and name or description of each leaking component and description of any unit where the leaking component is found, 3) The date of leak detection and the method of leak detection, 4) For gaseous leaks, the leak concentration in ppmv and, for liquids leaks, whether the leak is major or minor, 5) The date of repair, replacement or removal from operation of leaking components, 6) The identity and location of essential components and critical components as defined in this Rule, found leaking, that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, 7) The methods 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 1 year after detection, whichever comes earlier, 8) The date or re-inspection and the leak concentration in ppmv after the component is repaired or replaced, 9) The inspectors name, business mailing address, and business telephone number, and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

42. The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit

43. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

44. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

45. Compliance with permit Condition 2 on the Title V permit shall be deemed compliance with efficiency specification which have been waived by exhausting non-condensibles into a working steam generator firebox or flare for combustion. A permit shield is granted from there requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. {1769} The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Annual performance tests for hydrocarbon must be conducted and reported in accordance with the test methods set for the in 40 CFR 60, Part 60.8 and Appendix A. Performance tests for hydrocarbon shall be conducted using procedures approved in advance by the EPA in writing. The EPA and APCO must be notified in writing at least 30 day prior to conduction such tests. [PSD 4-4-8, SJ77-45 condition IX.H.1 and IX.H.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-123-4 **EXPIRATION DATE:** 12/31/2016

SECTION: 1 **TOWNSHIP:** 20S **RANGE:** 14E

EQUIPMENT DESCRIPTION:
210,000 GALLON (5000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14464) WITH DIAMETER 39', HEIGHT 24'

DRAFT

PERMIT UNIT REQUIREMENTS

1. {2587} True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. {2588} Permittee shall conduct True Vapor Pressure (TVP) 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
3. {2589} 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. {2590} For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The operator shall keep accurate records of types, storage temperature and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 4623, Section 6.1] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-124-4 **EXPIRATION DATE:** 12/31/2016

SECTION: 1 **TOWNSHIP:** 20S **RANGE:** 14E

EQUIPMENT DESCRIPTION:
210,000 GALLON (5000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14465) WITH DIAMETER 39', HEIGHT 24'

DRAFT

PERMIT UNIT REQUIREMENTS

1. {2587} True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. {2588} Permittee shall conduct True Vapor Pressure (TVP) 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
3. {2589} 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. {2590} For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-137-4 **EXPIRATION DATE:** 12/31/2016

SECTION: 14 **TOWNSHIP:** 20S **RANGE:** 14E

EQUIPMENT DESCRIPTION:
42,000 GALLON (1000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14385) WITH DIAMETER 21', HEIGHT 16'

DRAFT

PERMIT UNIT REQUIREMENTS

1. {2587} True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. {2588} Permittee shall conduct True Vapor Pressure (TVP) 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
3. {2589} 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. {2590} For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-138-4 **EXPIRATION DATE:** 12/31/2016

SECTION: 14 **TOWNSHIP:** 20S **RANGE:** 14E

EQUIPMENT DESCRIPTION:
42,000 GALLON (1000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14386) WITH DIAMETER 21', HEIGHT 16'

DRAFT

PERMIT UNIT REQUIREMENTS

1. {2587} True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. {2588} Permittee shall conduct True Vapor Pressure (TVP) 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
3. {2589} 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. {2590} For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-149-4 **EXPIRATION DATE:** 12/31/2016

SECTION: 31 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
210,000 GALLON (5000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14466) WITH DIAMETER 39', HEIGHT 24'

DRAFT

PERMIT UNIT REQUIREMENTS

1. {2587} True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. {2588} Permittee shall conduct True Vapor Pressure (TVP) 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
3. {2589} 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. {2590} For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-150-4 **EXPIRATION DATE:** 12/31/2016

SECTION: 31 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
210,000 GALLON (5000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14467) WITH DIAMETER 39', HEIGHT 24'

DRAFT

PERMIT UNIT REQUIREMENTS

1. {2587} True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. {2588} Permittee shall conduct True Vapor Pressure (TVP) 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
3. {2589} 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. {2590} For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The operator shall keep accurate records of types, storage temperature and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 4623, Section 6.1] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-168-12

EXPIRATION DATE: 12/31/2016

DRAFT

EQUIPMENT DESCRIPTION:
7.16 MMBTU/HR FLARE TO BE USED TO INCINERATE NATURAL, WELL CASING, AND VAPOR RECOVERY GAS DURING MAINTENANCE OF FOUR 62.5 MMBTU/HR STEAM GENERATORS (C-1121-17, -18, -19, AND -41)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4311. [District Rule 4311] Federally Enforceable Through Title V Permit
3. The operator shall permanently disconnect the fuel supply line serving this unit. [District Rule 4311] Federally Enforceable Through Title V Permit
4. 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
5. Only PUC-quality natural gas or a combination of natural gas and vapor recovery gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. Fuel consumption for the flare shall not exceed 1.35 MMscf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Combined exhaust gases combusted within steam generators '-17, '-18, '-19, and '-41, from the four CVR systems (C-1121-38, -39, -114, & -116) and the section 32 TVR system shall not exceed 1,300,000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. When fired only on natural gas, emissions from the flare shall not exceed any of the following limits: 0.008 lb-PM10/MMBtu; 0.00285 lb-SOx/MMBtu calculated as SO2; 0.068 lb-NOx/MMBtu calculated as NO2, or 30 ppmv @ 3% O2; 0.063 lb-VOC/MMBtu, or 0.37 lb-CO/MMBtu. [District NSR Rules, Rule 4201 and Rule 4301] Federally Enforceable Through Title V Permit
10. When fired only on waste gas, emissions from the flare shall not exceed any of the following limits: 0.0.008 lb-PM10/MMBtu; 3.31lb-SOx/MMBtu calculated as SO2; 0.068 lb-NOx/MMBtu calculated as NO2, or 30 ppmv @ 3% O2; 0.063 lb-VOC/MMBtu, or 0.37 lb-CO/MMBtu. [District NSR Rules, Rule 4201and Rule 4301] Federally Enforceable Through Title V Permit
11. {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]
12. Combined emissions of SOx, calculated as SO2, from the steam generators and the flare (C-1121-17, -18, -19, -41, & -168) shall not exceed 28,580 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

13. The sulfur content of treated waste gas exiting the H2S Scavenger System shall not exceed 5000 ppmv. Sulfur content shall be determined on a daily basis by gas detector tube sampling. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Lo-Cost H2S scavenging system shall be used whenever vapor recovery gas is fired in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Operation of this flare shall only occur when steam generators C-1121-17, -18,-19, and -41 are all shut down due to maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
17. The 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] Federally Enforceable Through Title V Permit
18. 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. 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] Federally Enforceable Through Title V Permit
19. Flare gas pressure shall be greater than or equal to 5 psig. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Gas line to flare shall be equipped with operational, volumetric flow rate indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Operation of the flare shall not exceed 48 hours per calendar quarter or 192 hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Records of operating hours, sulfur content, and gas volume flared shall be maintained, retained on the premises for at least five years, and be made available for District inspection on request. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-170-1 **EXPIRATION DATE:** 12/31/2016

DRAFT

EQUIPMENT DESCRIPTION:
85 MMBTU/HR NATURAL GAS-FIRED PCL CONSTRUCTION STEAM GENERATOR WITH A FIVES NORTH AMERICAN 4231-85-GLE LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM (PENN ZIER #14)

PERMIT UNIT REQUIREMENTS

1. The steam generator is approved to operate at the following locations: Section 1, T20S, R14E and Section 7, T20S, R15E. [District Rules 2201 and 4102] 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. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [District Rule 2201 and 40 CFR 60.48c (g)] Federally Enforceable Through Title V Permit
4. The unit shall only be fired on natural gas with a maximum sulfur content of 1.0 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
5. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320] Federally Enforceable Through Title V Permit
6. Except during startup, shutdown, or refractory curing, emissions rates from the unit shall not exceed any of the following limits: 7 ppmv NOx @ 3% O2 or 0.0084 lb-NOx/MMBtu, 0.005 lb-PM10/MMBtu, 25 ppmv CO @ 3% O2 or 0.0182 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
7. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
8. Permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [District Rule 2201 and 40 CFR 60.48c (g)] Federally Enforceable Through Title V Permit
9. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-171-1 **EXPIRATION DATE:** 12/31/2016

DRAFT

EQUIPMENT DESCRIPTION:
85 MMBTU/HR NATURAL GAS-FIRED PCL CONSTRUCTION STEAM GENERATOR WITH A FIVES-NORTH AMERICAN 4231-85-GLE LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM (PENN ZIER #13)

PERMIT UNIT REQUIREMENTS

1. The steam generator is approved to operate at the following locations: Section 1, T20S, R14E and Section 7, T20S, R15E. [District Rules 2201 and 4102] 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. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [District Rule 2201 and 40 CFR 60.48c (g)] Federally Enforceable Through Title V Permit
4. The unit shall only be fired on natural gas with a maximum sulfur content of 1.0 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
5. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320] Federally Enforceable Through Title V Permit
6. Except during startup, shutdown, or refractory curing, emissions rates from the unit shall not exceed any of the following limits: 7 ppmv NOx @ 3% O2 or 0.0084 lb-NOx/MMBtu, 0.005 lb-PM10/MMBtu, 25 ppmv CO @ 3% O2 or 0.0182 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
7. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
8. Permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [District Rule 2201 and 40 CFR 60.48c (g)] Federally Enforceable Through Title V Permit
9. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Steam Generator Source Testing Conditions, and Steam Generator Periodic Monitoring Conditions on the facility wide permit C-1121-0. Deviations from a standard condition shall be reported under the applicable condition in C-1121-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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ATTACHMENT B

Previous Title V Operating Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

Permit to Operate

FACILITY: C-1121

EXPIRATION DATE: 12/31/2016

LEGAL OWNER OR OPERATOR: AERA ENERGY LLC
MAILING ADDRESS: 10000 MING AVE
PO BOX 11164
BAKERSFIELD, CA 93389-1164

FACILITY LOCATION: HEAVY OIL PRODUCTION
FRESNO COUNTY, CA

FACILITY DESCRIPTION: PETROLEUM PRODUCTION

The Facility's Permit to Operate may include Facility-wide Requirements as well as requirements that apply to specific permit units.

This Permit to Operate remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require prior District approval. This permit shall be posted as prescribed in District Rule 2010.

Seyed Sadredin
Executive Director / APCO

Arnaud Marjollet
Director of Permit Services

Dec 19 2017 3:36PM – GARCIAC

San Joaquin Valley
Air Pollution Control District

FACILITY: C-1121-0-2 **EXPIRATION DATE:** 12/31/2016

FACILITY-WIDE REQUIREMENTS

1. 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
2. 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
3. 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
4. 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 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. 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
6. 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
7. 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
8. 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
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 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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

10. 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

11. 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

12. 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

13. 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

14. 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

15. 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

16. 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

17. 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

18. 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

19. 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

20. 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

21. 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

22. 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

23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating not exempt as allowed by Sections 4.1 and 4.2 of Rule 4601 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

24. 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

25. 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

26. 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

27. 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

28. 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

29. 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

30. 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

31. 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

32. 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

33. 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

34. 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

35. 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

36. 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

37. 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

38. 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

39. 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

40. 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

41. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-9-13 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
SG C-1, 62.5 MMBTU/HR THERMOTICS NATURAL GAS-FIRED STEAM GENERATOR, WITH COEN QLN ULN BURNER WITH FLUE GAS RECIRCULATION

PERMIT UNIT REQUIREMENTS

1. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
3. 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
4. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. 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
6. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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
8. Fuel consumption from the steam generator shall not exceed 1,430,000 scf/day of natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 15 ppmv NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 50 ppmv CO @ 3% O2, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4201, 4305, and 4306] Federally Enforceable Through Title V Permit
10. Subject to the definitions and requirements of Section 5.3, District Rule 4306, emission factor limitations of this permit shall not apply during periods of startup, shutdown, or refractory curing. Duration of startup and shutdown shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining in the heat exchanger section of the unit, and shall not exceed 30 hours per occurrence. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Records of the duration of any startup, shutdown, or any refractory curing shall be maintained. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit

12. 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 and 4306] Federally Enforceable Through Title V Permit

13. 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 and 4306] Federally Enforceable Through Title V Permit

14. 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 and 4306] Federally Enforceable Through Title V Permit

15. 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 and 4306] Federally Enforceable Through Title V Permit

16. 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 and 4306] Federally Enforceable Through Title V Permit

17. NOx, and CO emissions shall be measured with source testing conducted by independent testing laboratory and shall be witnessed or authorized by the District. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). 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, and 4306] Federally Enforceable Through Title V Permit

19. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305 and 4306] 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. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

23. 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 weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. 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 6, ARB Method 100; 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

25. 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 of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. 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 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2 and 4305, 6.2.1] Federally Enforceable Through Title V Permit

27. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source 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 Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] 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 1081] Federally Enforceable Through Title V Permit

29. 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. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

30. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. On and after July 1, 2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-10-13 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** T19S **RANGE:** R15E

EQUIPMENT DESCRIPTION:
SG C-2, 62.5 MMBTU/HR THERMOTICS STEAM GENERATOR, GAS FIRED, WITH COEN QLN-ULN BURNER WITH FLUE GAS RECIRCULATION

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Fuel consumption shall not exceed 1,430,000 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Unit shall be exclusively fired with natural gas containing no more than 0.35 grain of total sulfur per 100 standard cubic feet of gas. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, and 4801] Federally Enforceable Through Title V Permit
6. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
7. 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, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit
8. Emissions from the natural gas-fired steam generator shall not exceed any of the following limits: 0.001 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Except during start-up and shutdown periods and refractory curing, emissions from the natural gas-fired steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 43 ppmvd CO @ 3% O2 or 0.032 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit
10. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 51.5 lb-NOx/day or 45.8 lb-CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). 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, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

13. 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

14. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

15. 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, 5.5.2 and 4306, 5.5.2] 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. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

17. 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

18. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

19. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the engine shall be determined using ASTM D 1072, D 4468, D 4084, D 3246, or double GC for H2S and mercaptans. [District Rule 2520, 9.3.2]] Federally Enforceable Through Title V Permit

21. If the steam generator is not fired on 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 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. 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 and 4306] Federally Enforceable Through Title V Permit

24. 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 and 4306] Federally Enforceable Through Title V Permit

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 and 4306] Federally Enforceable Through Title V Permit

26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Last Amended December 17, 1992), 4301 (Last Amended December 17, 1992), 4406 (Amended December 17, 1992), and 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

27. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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

28. Permittee shall maintain records of duration of each start-up, shutdown, and refractory curing, per a period of five years and make such records readily available for District inspection upon request. [District Rules 2080 and 4306] Federally Enforceable Through Title V Permit

29. All records shall be maintained and retained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, and 4306, 6.1] Federally Enforceable Through Title V Permit

30. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

32. On and after July 1, 2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-12-7 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
DORMANT SG C-4, 62.5 MMBTU/HR THERMOTICS GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN MODEL 6131G LONOX BURNER

PERMIT UNIT REQUIREMENTS

1. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
2. This equipment shall not be operated for any reason until necessary retrofits are made to comply with the applicable requirements of District Rule 4305 [District NSR Rule and Rule 4305] Federally Enforceable Through Title V Permit
3. No modification to this unit shall be performed without an Authority to Construct for that modification, except for changes specified in condition 4 below. [District NSR Rule] Federally Enforceable Through Title V Permit
4. All fuel supply lines shall be physically disconnected from the unit. [District NSR Rule and Rule 4305] Federally Enforceable Through Title V Permit
5. Emissions from this unit shall not exceed 30 ppm NOx, (0.036 lb-NOx/MMBtu @ 3% O2), nor 400 ppm CO @ 3% O2 when fired on natural gas fuel . [District NSR Rule and Rule 4305, 5.1, 5.3] Federally Enforceable Through Title V Permit
6. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Fuel consumption shall not exceed 1,430,000 scf/day of PUC Quality natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Combined exhaust gases from the two CVR (C-1121-38 and -39) and the section 32 TVR systems shall not exceed 675,000 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions shall not exceed 0.061 lb-NOx/MMBtu @ 3% O2 calculated as NO2; 0.08 lb-SOx/MMBtu calculated as SO2; 0.032 lb-CO/MMBtu @ 3% O2; 0.057 lb-PM10/MMBtu calculated at 12% CO2 nor 0.008 lb-VOC/MMbtu. [District NSR Rule, Rule 4201, 5.1 and Rule 4301, 5.1, 5.2] Federally Enforceable Through Title V Permit
10. 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
11. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. 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 weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. 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 6 or ARB Method 100; 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

14. 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 of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. 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 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2 and 4305, 6.2.1] Federally Enforceable Through Title V Permit

16. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using 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, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

17. NOx, and CO emissions shall be measured with annual source testing conducted by independent testing laboratory and shall be witnessed or authorized by the District. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

20. The following conditions must be met for representative unit(s) to be used to test for NOx limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.4.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

21. All units in a group for which representative units are source for NOx emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for the each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.4.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All units in a group for which representative units are source tested to for NOx emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.4.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

23. The number of representative units source tested for NOx emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

26. On and after July 1, 2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-13-12 **EXPIRATION DATE:** 12/31/2016

SECTION: 26 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED THERMOTICS STEAM GENERATOR WITH COEN QLN LONOX BURNER AND FLUE GAS RECIRCULATION (SG N-5)

PERMIT UNIT REQUIREMENTS

1. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
3. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
4. 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
5. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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
7. Fuel consumption from the steam generator shall not exceed 1,430,000 scf/day of natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 15 ppmv NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 50 ppmv CO @ 3% O2, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4201, 4305, and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Subject to the definitions and requirements of Section 5.3, District Rule 4306, emission factor limitations of this permit shall not apply during periods of startup, shutdown, or refractory curing. Duration of startup and shutdown shall not exceed 2 hours each per occurence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining in the heat exchanger section of the unit, and shall not exceed 30 hours per occurrence. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

10. Records of the duration of any startup, shutdown, or any refractory curing shall be maintained. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit

11. 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 and 4306] Federally Enforceable Through Title V Permit

12. 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 and 4306] Federally Enforceable Through Title V Permit

13. 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 and 4306] 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 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 and 4306] Federally Enforceable Through Title V Permit

15. 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 and 4306] Federally Enforceable Through Title V Permit

16. NOx, and CO emissions shall be measured with annual source testing conducted by independent testing laboratory and shall be witnessed or authorized by the District. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). 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, and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

18. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] 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, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305 and 4306] 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. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

22. 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 weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. 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 6, ARB Method 100; 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

24. 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 of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. 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 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2, 4305, 6.2.1, and 4306] Federally Enforceable Through Title V Permit

26. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source 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 Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] 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 1081] Federally Enforceable Through Title V Permit

28. 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. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

31. On and after July 1, 2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-14-13 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR THERMOTICS STEAM GENERATOR (SG N-6) GAS FIRED, WITH COEN QLN-ULN BURNER WITH FLUE GAS RECIRCULATION

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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Fuel consumption shall not exceed 1,430,000 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, and 4801] Federally Enforceable Through Title V Permit
7. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
8. 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, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit
9. Emissions from the natural gas-fired steam generator shall not exceed any of the following limits: 0.001 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Except during start-up and shutdown periods and refractory curing, emissions from the natural gas-fired steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 43 ppmvd CO @ 3% O2 or 0.032 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 51.5 lb-NOx/day or 45.8 lb-CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). 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, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

14. 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

15. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

16. 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, 5.5.2 and 4306, 5.5.2] 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. [District Rules 4305, 5.5.5 and 4306, 5.5.5] 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, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the engine shall be determined using ASTM D 1072, D 4468, D 4084, D 3246, or double GC for H2S and mercaptans. [District Rule 2520, 9.3.2]] Federally Enforceable Through Title V Permit

22. If the steam generator is not fired on 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 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. 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, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

24. 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 and 4306] Federally Enforceable Through Title V Permit

25. 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 and 4306] Federally Enforceable Through Title V Permit

26. 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 and 4306] Federally Enforceable Through Title V Permit

27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Last Amended December 17, 1992), 4301 (Last Amended December 17, 1992), 4406 (Amended December 17, 1992), and 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

28. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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

29. Permittee shall maintain records of duration of each start-up, shutdown, and refractory curing, per a period of five years and make such records readily available for District inspection upon request. [District Rules 2080 and 4306] Federally Enforceable Through Title V Permit

30. All records shall be maintained and retained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, and 4306, 6.1] Federally Enforceable Through Title V Permit

31. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. On and after July 1, 2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-15-13 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR THERMOTICS STEAM GENERATOR (SG N-7), GAS FIRED, WITH COEN QLN-ULN BURNER WITH FLUE GAS RECIRCULATION

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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Fuel consumption shall not exceed 1,430,000 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, and 4801] Federally Enforceable Through Title V Permit
7. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
8. 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, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit
9. Emissions from the natural gas-fired steam generator shall not exceed any of the following limits: 0.001 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Except during start-up and shutdown periods and refractory curing, emissions from the natural gas-fired steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 43 ppmvd CO @ 3% O2 or 0.032 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 51.5 lb-NOx/day or 45.8 lb-CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). 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, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

14. 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

15. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

16. 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, 5.5.2 and 4306, 5.5.2] 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. [District Rules 4305, 5.5.5 and 4306, 5.5.5] 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, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the engine shall be determined using ASTM D 1072, D 4468, D 4084, D 3246, or double GC for H2S and mercaptans. [District Rule 2520, 9.3.2]] Federally Enforceable Through Title V Permit

22. If the steam generator is not fired on 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 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. 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 and 4306] Federally Enforceable Through Title V Permit

24. 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 and 4306] Federally Enforceable Through Title V Permit

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 and 4306] Federally Enforceable Through Title V Permit

26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Last Amended December 17, 1992), 4301 (Last Amended December 17, 1992), 4406 (Amended December 17, 1992), and 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

27. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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

28. Permittee shall maintain records of duration of each start-up, shutdown, and refractory curing, per a period of five years and make such records readily available for District inspection upon request. [District Rules 2080 and 4306] Federally Enforceable Through Title V Permit

29. All records shall be maintained and retained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, and 4306, 6.1] Federally Enforceable Through Title V Permit

30. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

32. On and after July 1, 2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-16-12 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
SG N-8, 62.5 MMBTU/HR THERMOTICS STEAM GENERATOR, GAS FIRED, WITH NORTH AMERICAN MODEL 6131G LONOX BURNER WITH FLUE GAS RECIRCULATION

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Fuel consumption shall not exceed 1,430,000 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, and 4801] Federally Enforceable Through Title V Permit
5. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
6. 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, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit
7. Emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed any of the following limits: 0.001 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Except during start-up and shutdown periods and refractory curing, emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 43 ppmvd CO @ 3% O2 or 0.032 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit
9. During start-up and shutdown periods, emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed either of the following limits: 51.5 lb-NOx/day or 45.8 lb-CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). 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, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit
12. 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
13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit
14. 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, 5.5.2 and 4306, 5.5.2] 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. [District Rules 4305, 5.5.5 and 4306, 5.5.5] 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. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
19. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the engine shall be determined using ASTM D 1072, D 4468, D 4084, D 3246, or double GC for H2S and mercaptans. [District Rule 2520, 9.3.2]] Federally Enforceable Through Title V Permit
20. If the steam generator is not fired on 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 2520, 9.3.2] 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 Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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 and 4306] 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 and 4306] Federally Enforceable Through Title V Permit

24. 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 and 4306] Federally Enforceable Through Title V Permit

25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Last Amended December 17, 1992), 4301 (Last Amended December 17, 1992), 4406 (Amended December 17, 1992), and 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

26. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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

27. Permittee shall maintain records of duration of each start-up, shutdown, and refractory curing, per a period of five years and make such records readily available for District inspection upon request. [District Rules 2080 and 4306] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, and 4306, 6.1] Federally Enforceable Through Title V Permit

29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

30. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

31. On and after July 1, 2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-17-28 **EXPIRATION DATE:** 12/31/2016

SECTION: 26 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
S-9, 62.5 MMBTU/HR THERMOTICS, NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH COEN QLN ULN BURNER AND FLUE GAS RECIRCULATION SERVED BY LO-COST H2S SCAVENGER SYSTEM AND SULFATREAT VESSELS SHARED WITH PERMIT UNITS C-1121-18, '-19 AND '-41

PERMIT UNIT REQUIREMENTS

1. Fuel consumption for the steam generator shall not exceed 1,500 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combined quantity of well vent and tank vapor recovery gases combusted within steam generators '-17, '-18, '-19, and '-41, from the four CVR systems (C-1121-38, -39, -114, & -116) and the section 32 TVR system shall not exceed 1,300,000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Only natural gas, vapor recovery gas, or a combination of natural gas and vapor recovery gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
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. Lo-Cost H2S scavenging system shall be used whenever vapor recovery gas is fired in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following limits: NOx (as NO2): 14 ppmv @ 3% O2 or 0.017 lb/MMBtu (25.5 lb/day), CO: 43 ppmv @ 3%O2 or 0.032 lb/MMBtu (48.0 lb/day), PM10: 0.0076 lb/MMBtu (11.4 lb-PM10/day), or VOC: 0.008 lb/MMBtu (12.0 lb/day). [District Rules 2201, 4201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
8. When fired on PUC quality natural gas, the SOx emissions rate shall not exceed 0.00285 lb/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
9. When fired on gases other than PUC quality natural gas, the SOx emissions rate shall not exceed 9 ppmv @ 3% O2 or 0.015 lb/MMBtu (22.8 lb/day). [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. Combined emissions of SOx, calculated as SO2, from the steam generators and the flare (C-1121-17, -18, -19, -41, & -168) shall not exceed 28,580 lb/yr. [District Rule 2201]
11. The sulfur content of treated waste gas exiting the H2S Scavenger System shall be determined on a daily basis by gas detector tube sampling. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The sulfur content of the waste gas exiting the sulfur treatment system shall be tested weekly for sulfur content and higher heating value. If compliance with the sulfur emission limits has been demonstrated for 8 consecutive weeks, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. Testing shall be by grab sample analysis by GC-FPD/TCD or other District approved methods for H2S and mercaptans performed in the laboratory and EPA Method 19. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

13. Daily SOx emissions from combustion of waste gas shall be calculated based on the waste gas sulfur content as determined by gas detector tube sampling or the most recent laboratory analysis, whichever is greater. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

14. When source or type of gas changes, sampling for sulfur content shall be conducted within one week. A change in fuel type is defined as changing between any of the following: PUC-Quality gas, unprocessed field gas, or any field gas with any specific level of pretreatment. [District Rule 2520] Federally Enforceable Through Title V Permit

15. At least once every 12 months, unit shall be stack tested to demonstrate compliance with the SOx emission limit required by this permit (ppmv @3 % O2) using EPA Method 6C, Method 8 or ARB Method 100. Stack testing for SOx emissions in not required if unit was fired only on PUC quality natural during the 12 months prior to the compliance testing anniversary date. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

16. 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 of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit

17. 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 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520 and 4305] Federally Enforceable Through Title V Permit

18. 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 and 4306] Federally Enforceable Through Title V Permit

19. Subject to the definitions and requirements of Section 5.3, District Rule 4306, emission factor limitations of this permit shall not apply during periods of startup, shutdown, or refractory curing. Duration of startup and shutdown shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining in the heat exchanger section of the unit, and shall not exceed 30 hours per occurrence. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. 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 and 4306] 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 Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. 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 and 4306] 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 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 and 4306] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). 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 4351] Federally Enforceable Through Title V Permit

25. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] 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 and 4306] Federally Enforceable Through Title V Permit

27. 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 and 4306] Federally Enforceable Through Title V Permit

28. 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

29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D 1072, D 4468, D 4084, D 3246, or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

30. NOx, and CO emissions shall be measured with annual source testing conducted by independent testing laboratory with sample collection by ARB certified testing laboratory and shall be witnessed or authorized by the District. [District Rule 1081, 3.0, 4.0 and Rule 2520] Federally Enforceable Through Title V Permit

31. 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

32. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the non-certified (non PUC/FERC regulated) natural gas being fired in the steam generator shall be determined using ASTM D 1072, D 4468, D 4084, D 3246, or double GC for H2S and mercaptans. [District Rule 2520] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Last Amended December 17, 1992), 4301 (Last Amended December 17, 1992), 4406 (Amended December 17, 1992), and 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

37. Permittee shall maintain daily record of all natural gas consumption including waste gas consumption, fuel sulfur content, calculated SOx emissions, supplier certifications and test results to show compliance with the conditions of this permit. The operator shall record daily amount and type (s) of fuel(s) combusted and all dates on which unit is fired on any non certified fuel and record specific type(s) of non certified fuel used. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit

38. 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. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-18-28 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
S-10, 62.5 MMBTU/HR THERMOTICS, NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER, AND A FLUE GAS RECIRCULATION (FGR) SYSTEM SERVED BY LO-COST H2S SCAVENGER SYSTEM AND SULFATREAT VESSELS SHARED WITH PERMIT UNITS C-1121-17, '-19 AND '-41

PERMIT UNIT REQUIREMENTS

1. Fuel consumption for the steam generator shall not exceed 1,500 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combined quantity of well vent and tank vapor recovery gases combusted within steam generators -17, -18, -19, and -41, from the four CVR systems (C-1121-38, -39, -114, & -116) and the section 32 TVR system shall not exceed 1,300,000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Only natural gas, vapor recovery gas, or a combination of natural gas and vapor recovery gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
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. Lo-Cost H2S scavenging system shall be used whenever vapor recovery gas is fired in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following limits: NOx (as NO2): 14 ppmv @ 3% O2 or 0.017 lb/MMBtu (25.5 lb/day), CO: 43 ppmv @ 3%O2 or 0.032 lb/MMBtu (48.0 lb/day), PM10: 0.0076 lb/MMBtu (11.4 lb-PM10/day), or VOC: 0.008 lb/MMBtu (12.0 lb/day). [District Rules 2201, 4201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
8. When fired on PUC quality natural gas, the SOx emissions rate shall not exceed 0.00285 lb/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
9. When fired on gases other than PUC quality natural gas, the SOx emissions rate shall not exceed 9 ppmv @ 3% O2 or 0.015 lb/MMBtu (22.8 lb/day). [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. Combined emissions of SOx, calculated as SO2, from the steam generators and the flare (C-1121-17, -18, -19, -41, & -168) shall not exceed 28,580 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The sulfur content of treated waste gas exiting the H2S Scavenger System shall be determined on a daily basis by gas detector tube sampling. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The sulfur content of the waste gas exiting the sulfur treatment system shall be tested weekly for sulfur content and higher heating value. If compliance with the sulfur emission limits has been demonstrated for 8 consecutive weeks, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. Testing shall be by grab sample analysis by GC-FPD/TCD or other District approved methods for H2S and mercaptans performed in the laboratory and EPA Method 19. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
13. Daily SOx emissions from combustion of waste gas shall be calculated based on the waste gas sulfur content as determined by gas detector tube sampling or the most recent laboratory analysis, whichever is greater. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
14. When source or type of gas changes, sampling for sulfur content shall be conducted within one week. A change in fuel type is defined as changing between any of the following: PUC-Quality gas, unprocessed field gas, or any field gas with any specific level of pretreatment. [District Rule 2520] Federally Enforceable Through Title V Permit
15. At least once every 12 months, unit shall be stack tested to demonstrate compliance with the SOx emission limit required by this permit (ppmv @3 % O2) using EPA Method 6C, Method 8 or ARB Method 100. Stack testing for SOx emissions in not required if unit was fired only on PUC quality natural during the 12 months prior to the compliance testing anniversary date. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
16. 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 of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit
17. 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 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520 and 4305] Federally Enforceable Through Title V Permit
18. 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 and 4306] Federally Enforceable Through Title V Permit
19. Subject to the definitions and requirements of Section 5.3, District Rule 4306, emission factor limitations of this permit shall not apply during periods of startup, shutdown, or refractory curing. Duration of startup and shutdown shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining in the heat exchanger section of the unit, and shall not exceed 30 hours per occurrence. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
20. 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 and 4306] 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 Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. 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 and 4306] 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 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 and 4306] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). 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 4351] Federally Enforceable Through Title V Permit

25. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] 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 and 4306] Federally Enforceable Through Title V Permit

27. 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 and 4306] Federally Enforceable Through Title V Permit

28. 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

29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D 1072, D 4468, D 4084, D 3246, or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

30. NOx, and CO emissions shall be measured with annual source testing conducted by independent testing laboratory with sample collection by ARB certified testing laboratory and shall be witnessed or authorized by the District. [District Rule 1081, 3.0, 4.0 and Rule 2520] Federally Enforceable Through Title V Permit

31. 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

32. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the non-certified (non PUC/FERC regulated) natural gas being fired in the steam generator shall be determined using ASTM D 1072, D 4468, D 4084, D 3246, or double GC for H2S and mercaptans. [District Rule 2520] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Last Amended December 17, 1992), 4301 (Last Amended December 17, 1992), 4406 (Amended December 17, 1992), and 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

37. Permittee shall maintain daily record of all natural gas consumption including waste gas consumption, fuel sulfur content, calculated SOx emissions, supplier certifications and test results to show compliance with the conditions of this permit. The operator shall record daily amount and type (s) of fuel(s) combusted and all dates on which unit is fired on any non certified fuel and record specific type(s) of non certified fuel used. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit

38. 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. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-19-28 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
S-11, 62.5 MMBTU/HR THERMOTICS, NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER AND A FLUE GAS RECIRCULATION (FGR) SYSTEM SERVED BY LO-COST H2S SCAVENGER SYSTEM AND SULFATREAT VESSELS SHARED WITH PERMIT UNITS C-1121-17, '-18 AND '-41

PERMIT UNIT REQUIREMENTS

1. Fuel consumption for the steam generator shall not exceed 1,500 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combined quantity of well vent and tank vapor recovery gases combusted within steam generators '-17, '-18, '-19, and '-41, from the four CVR systems (C-1121-38, -39, -114, & -116) and the section 32 TVR system shall not exceed 1,300,000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Only natural gas, vapor recovery gas, or a combination of natural gas and vapor recovery gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
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. Lo-Cost H2S scavenging system shall be used whenever vapor recovery gas is fired in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following limits: NOx (as NO2): 14 ppmv @ 3% O2 or 0.017 lb/MMBtu (25.5 lb/day), CO: 43 ppmv @ 3% O2 or 0.032 lb/MMBtu (48.0 lb/day), PM10: 0.0076 lb/MMBtu (11.4 lb-PM10/day), or VOC: 0.008 lb/MMBtu (12.0 lb/day). [District Rules 2201, 4201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
8. When fired on PUC quality natural gas, the SOx emissions rate shall not exceed 0.00285 lb/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
9. When fired on gases other than PUC quality natural gas, the SOx emissions rate shall not exceed 9 ppmv @ 3% O2 or 0.015 lb/MMBtu (22.8 lb/day). [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. Combined emissions of SOx, calculated as SO2, from the steam generators and the flare (C-1121-17, -18, -19, -41, & -168) shall not exceed 28,580 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The sulfur content of treated waste gas exiting the H2S Scavenger System shall be determined on a daily basis by gas detector tube sampling. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The sulfur content of the waste gas exiting the sulfur treatment system shall be tested weekly for sulfur content and higher heating value. If compliance with the sulfur emission limits has been demonstrated for 8 consecutive weeks, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. Testing shall be by grab sample analysis by GC-FPD/TCD or other District approved methods for H2S and mercaptans performed in the laboratory and EPA Method 19. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

13. Daily SOx emissions from combustion of waste gas shall be calculated based on the waste gas sulfur content as determined by gas detector tube sampling or the most recent laboratory analysis, whichever is greater. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

14. When source or type of gas changes, sampling for sulfur content shall be conducted within one week. A change in fuel type is defined as changing between any of the following: PUC-Quality gas, unprocessed field gas, or any field gas with any specific level of pretreatment. [District Rule 2520] Federally Enforceable Through Title V Permit

15. At least once every 12 months, unit shall be stack tested to demonstrate compliance with the SOx emission limit required by this permit (ppmv @3 % O2) using EPA Method 6C, Method 8 or ARB Method 100. Stack testing for SOx emissions in not required if unit was fired only on PUC quality natural during the 12 months prior to the compliance testing anniversary date. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

16. 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 of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit

17. 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 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520 and 4305] Federally Enforceable Through Title V Permit

18. 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 and 4306] Federally Enforceable Through Title V Permit

19. Subject to the definitions and requirements of Section 5.3, District Rule 4306, emission factor limitations of this permit shall not apply during periods of startup, shutdown, or refractory curing. Duration of startup and shutdown shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining in the heat exchanger section of the unit, and shall not exceed 30 hours per occurrence. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. 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 and 4306] 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 Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. 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 and 4306] 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 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 and 4306] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). 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 4351] Federally Enforceable Through Title V Permit

25. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] 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 and 4306] Federally Enforceable Through Title V Permit

27. 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 and 4306] Federally Enforceable Through Title V Permit

28. 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

29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D 1072, D 4468, D 4084, D 3246, or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

30. NOx, and CO emissions shall be measured with annual source testing conducted by independent testing laboratory with sample collection by ARB certified testing laboratory and shall be witnessed or authorized by the District. [District Rule 1081 and Rule 2520] Federally Enforceable Through Title V Permit

31. 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

32. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the non-certified (non PUC/FERC regulated) natural gas being fired in the steam generator shall be determined using ASTM D 1072, D 4468, D 4084, D 3246, or double GC for H2S and mercaptans. [District Rule 2520] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Last Amended December 17, 1992), 4301 (Last Amended December 17, 1992), 4406 (Amended December 17, 1992), and 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

37. Permittee shall maintain daily record of all natural gas consumption including waste gas consumption, fuel sulfur content, calculated SOx emissions, supplier certifications and test results to show compliance with the conditions of this permit. The operator shall record daily amount and type (s) of fuel(s) combusted and all dates on which unit is fired on any non certified fuel and record specific type(s) of non certified fuel used. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit

38. 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. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-22-14 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
4.0 MMBTU/HR ENGELMAN GENERAL HEATER WITH NORTH AMERICAN MODEL 5131 GAS BURNER (PEER-1-0) AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-303)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
3. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
6. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. A facility operator, upon detection of a leaking component, 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
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. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the vessel volume is displaced; or 3) Vent the vessel to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = vessel volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

19. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The vessel sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Prior to reintroducing crude oil/water to the vessel, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date vessel cleaning was completed, the procedure used to vent vessel vapors prior to opening, the method of vessel cleaning used, and a description of internal and external vessel repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

23. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line vessel or at any secondary vessel which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

24. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

25. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-23-14 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
2,235 BBL HEATER TREATER VESSEL WITH PRESSURE RELIEF VENT CONNECTED TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-304) AND PERMIT EXEMPT BURNER (NATURAL GAS-FIRED, 5.0 MMBTU/HR OR LESS)

PERMIT UNIT REQUIREMENTS

1. This pressure vessel shall maintain working pressures sufficient to prevent organic liquid loss or VOC loss to the atmosphere at all times. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-24-9 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #5131 GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-307)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. 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
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. 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
5. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
6. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
7. Maximum annual heat input of the unit shall not exceed 9 billion Btu per calendar year. [District Rule 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
8. Fuel consumption shall not exceed 114,290 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 0.14 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0044 lb-PM10/MMBtu, 0.035 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
10. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
11. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
13. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
16. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit
17. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
18. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
20. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
25. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the vessel volume is displaced; or 3) Vent the vessel to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = vessel volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

27. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The vessel sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the vessel, the vessel shall be filled to the maximum possible level with water, the vessel vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date vessel cleaning was completed, the procedure used to vent vessel vapors prior to opening, the method of vessel cleaning used, and a description of internal and external vessel repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

31. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

32. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

33. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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

35. 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 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

36. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit

38. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit

39. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

40. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

41. 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. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-25-9 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #5131 GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-308)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. 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
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. 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
5. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
6. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
7. Maximum annual heat input of the unit shall not exceed 9 billion Btu per calendar year. [District Rule 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
8. Fuel consumption shall not exceed 114,290 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 0.14 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0044 lb-PM10/MMBtu, 0.035 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
10. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
11. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
13. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit

17. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the vessel volume is displaced; or 3) Vent the vessel to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = vessel volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

27. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The vessel sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the vessel, the vessel shall be filled to the maximum possible level with water, the vessel vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date vessel cleaning was completed, the procedure used to vent vessel vapors prior to opening, the method of vessel cleaning used, and a description of internal and external vessel repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

31. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

32. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

33. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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

35. 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 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

36. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit

38. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit

39. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

40. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

41. 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. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-26-9 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #6121-25H GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-309)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. 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
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. 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
5. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
6. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
7. Maximum annual heat input of the unit shall not exceed 9 billion Btu per calendar year. [District Rule 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
8. Fuel consumption shall not exceed 114,290 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 0.14 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0044 lb-PM10/MMBtu, 0.035 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
10. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
11. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
13. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

15. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
16. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit
17. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
18. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
20. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
25. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the vessel volume is displaced; or 3) Vent the vessel to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the vessel to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = vessel volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

27. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The vessel sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the vessel, the vessel shall be filled to the maximum possible level with water, the vessel vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date vessel cleaning was completed, the procedure used to vent vessel vapors prior to opening, the method of vessel cleaning used, and a description of internal and external vessel repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

31. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

32. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

33. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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

35. 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 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

36. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit

38. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit

39. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

40. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

41. 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. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-33-9 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
TG-1, 52.7 MMBTU/HR ALLISON GM 501-KB5 NATURAL GAS FIRED TURBINE WITH WATER INJECTION AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM DRIVING A 4 MW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. Unit shall be exclusively fired with natural gas containing no more than 1 grain of total sulfur per 100 standard cubic feet of gas. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Except during periods of startup, shutdown, and shakedown, emissions rates (three hour rolling average) shall not exceed any of the following: NOx (as NO2): 5 ppmv dry @ 15% O2, CO: 38 ppmv dry @ 15% O2. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit
3. Emissions shall not exceed any of the following limits: NOx (as NO2); 46.3 lb/day, CO: 107.5 lb/day, PM10: 8.3 lb/day; SOx (as SO2): 3.6 lb/day or VOC: 2.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081 (as amended 12/16/93). [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. If this unit is not fired on 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. [40 CFR 60.334(h)(3) and District Rule 1070] Federally Enforceable Through Title V Permit
7. If this unit is not fired on PUC-regulated natural gas, the 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(j)(2)(i)] Federally Enforceable Through Title V Permit
8. If this unit is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM D3246 or double GC for H2S and mercaptans, and fuel H2S content - gas detection tubes calibrated for H2S or other District-approved fuel sulfur detection method(s) or device(s). [40 CFR 60.335(b)(10)(2) and District Rule 1070] Federally Enforceable Through Title V Permit
9. If this unit is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Except during startup, shutdown, and reduced load periods, any one-hour period during which the average ammonia injection flowrate, as measured by the continuous monitoring system, falls outside the flowrate range as determined to demonstrate compliance shall be reported to the APCO. Each report shall include the average average water-to-fuel ratio, ammonia injection flowrate, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(j)(1)(i)] Federally Enforceable Through Title V Permit
11. Permittee shall install, operate and maintain in calibration, to within 5% accuracy, a monitoring system which continuously measures and records the water-to-fuel ratio and fuel consumption and which correlates the water-to-fuel ratio during initial source testing with the NOx concentration in the exhaust. [District NSR Rule, Rule 4703 and 40 CFR 60.334(a)] Federally Enforceable Through Title V Permit
12. Permittee shall install and operate a system which continuously measures and records elapsed time of turbine operation. [District Rule 40 CFR 60.334(a) and District Rule 4703] Federally Enforceable Through Title V Permit
13. Permittee shall install, operate and maintain in calibration a system which continuously measures and records ammonia injection flow rate, monitors ammonia pressure, and sounds an alarm if outside the acceptable operating pressure range. Ammonia injection flow rate and pressure shall be operated within the range recommended by SCR manufacturer and determined by performance tests such that the turbine maintains 95% or greater control efficiency or complies with the applicable NOx emission concentration limit. [District Rule 40 CFR 60.334(a) and District Rule 4703] Federally Enforceable Through Title V Permit
14. Gas turbine engine shall be equipped with water injection system for NOx control. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Gas turbine engine water injection rate shall be maintained at a water-to-fuel ratio documented to result in compliance with emission limits. Operator shall perform and submit an engineering performance test to demonstrate continuous compliance with emissions limits beyond the specified ratios. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
16. Gas turbine engine shall be equipped with continuously recording water to fuel injection rate monitoring system accurate to within +/- 5%. [District Rule 2201& 40 CFR 60.334(a)] Federally Enforceable Through Title V Permit
17. If ammonia injection system is inoperative for more than 1 hour, gas turbine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Evaporative cooler shall use only fresh and filtered water. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District Rule 1081] Federally Enforceable Through Title V Permit
20. The ammonia (NH3) emissions from the exhaust of the SCR system serving this gas turbine shall not exceed 20 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain accurate records of ammonia consumption. [District Rule 1070 and 4703] Federally Enforceable Through Title V Permit
22. Gas temperature at SCR catalyst section inlet shall be continuously monitored by operational temperature indicator. Inlet gas temperature to catalyst bed shall be maintained within range recommended by catalyst manufacturer and determined by performance tests. [40 CFR 60.334(a) and District Rule 4703] Federally Enforceable Through Title V Permit
23. During an initial shakedown period, except during periods of startup and shutdown, the emissions shall not exceed any of the following limits: 35 ppmvd NOx @ 15% O2 referenced as NO2. The shakedown period shall not exceed 90 calendar days from the initial startup of the unit under this permit. The shakedown period must be concluded prior to the applicable Rule 4703 compliance deadline selected for this unit. The permittee shall maintain a record of the date of initial operation of this unit, fuel combusted (scf/day) on daily basis, water-to-fuel ratio, and results of ammonia injection rate monitoring from CMS. These records shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Startup and shutdown of the gas turbine, as defined in this permit and in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours for startup and two hours for shutdown, per occurrence. Emission concentrations subsequent to this startup period shall not exceed the limits specified in this permit except during shutdown. [40 CFR Subpart A 60.2 and District Rule 4703] Federally Enforceable Through Title V Permit

25. The duration of reduced load shall not exceed a time period of one hour per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit

26. Daily records of NOx and CO emission calculations during days of startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. Maximum NOx (as NO2) and SOx (as SO2) emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmv-dry @ 15% O2, and 150 ppmv-dry @ 15% O2, respectively. [40 CFR 60.332(a)(2) & 60.333(a)] Federally Enforceable Through Title V Permit

28. The permittee shall monitor and record the stack concentration of NOx, CO, NH3, and O2 at least once every month in which a source test is not performed. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH3 monitoring shall be conducted utilizing gas detection tubes or a District approved equivalent method. 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 previous calendar month. [District Rule 4703] Federally Enforceable Through Title V Permit

29. If the NOx or CO concentrations corrected to 15% 02 as measured by the portable analyzer or the NH3 concentration, as measured by gas detection tubes or a District approved equivalent method, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continues to show emission limit violations after 1 hour of operation following 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 that is subject to enforcement action has occurred. 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 4703] Federally Enforceable Through Title V Permit

30. All NOx, CO, 02 and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and 02 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4703] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3 and 02 measurements, (2) the 02 concentration in percent by volume and the measured NOx, CO and NH3 concentrations corrected to 15% 02, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rule 4703] Federally Enforceable Through Title V Permit

32. A source test to demonstrate compliance with NOx, CO, and NH3 emission limits, and fuel sulfur content shall be performed within 60 days after the shakedown period has been completed for this modified unit. The appropriate ammonia injection rate, fuel consumption, ammonia to fuel ratio, water to fuel ratio, and any other associated operating parameter shall be continuously monitored and recorded during this test to establish acceptable operating ranges. Selective Catalytic Reduction (SCR) 95% control efficiency may be demonstrated as an alternative to compliance with the Rule 4703 NOx emissions concentration limit. [District Rules 2201, 40 CFR 60.334(g), 40 CFR 60.335(b), and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Source testing to measure exhaust gas NOx, CO, and NH3 concentrations and, if applicable, Selective Catalytic Reduction (SCR) control efficiency shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). Performance testing shall be conducted under conditions representative of normal operation. [40 CFR 60.335(b), District Rule 4703, District Rule 2520] Federally Enforceable Through Title V Permit

34. The owner or operator shall provide source test information annually regarding the exhaust gas NOx and CO concentration corrected to 15% O2 (dry). [District Rule 4703] Federally Enforceable Through Title V Permit

35. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or 20, CO (ppmv) - EPA Method 10 or 10B, stack gas oxygen - EPA Method 3 or 3A or 20, fuel gas sulfur content - ASTM D1072, D4468, or D3246 or double GC for H2S and mercaptans, fuel gas HHV and LHV - ASTM D3598, D1826 or D1945, Ammonia slip - BAAQMD method ST-1B. [40 CFR 60.335(b) and District Rules 1081 & 4703] Federally Enforceable Through Title V Permit

36. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

37. Performance testing shall be witnessed or authorized District personnel. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit

38. Permittee shall report the following emission exceedance to the District: emission rates of NOx & CO on a three-hour rolling average and NSPS emission rate on one hour average. [District Rule 1070, 2201 and 4703] Federally Enforceable Through Title V Permit

39. 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. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption for normal operation and for the startup/shutdown periods. This information may be recorded electronically. Daily entries in the operating log are not required for periods of non-operation. [District Rules 2520 & 4703] Federally Enforceable Through Title V Permit

40. Permittee shall maintain accurate records of all maintenance activities, periodic inspections, and repairs of SCR unit, water and NH3 injection systems, and their associated controller and instrumentation units. [District Rules 1070 and 4703] Federally Enforceable Through Title V Permit

41. Permittee shall comply in full with Rule 4001 (New Source Performance Standards, 40 CFR 60 Subpart GG) requirements, including notification, recordkeeping and monitoring requirements. [District Rule 4001] Federally Enforceable Through Title V Permit

42. The owner or operator shall maintain all records for a period of five years from the date of entry and shall make such records available to the APCO upon request. [District Rules 1080, 2201, & 4703, 6.2.4] 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: Fresno County Rules 108.1 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Fresno County Rule 406 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

45. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332(a)(2), (c), and (f), 60.333 (a) and (b); 60.334(a), (c)(1), (c)(2), and (c)(3), and 60.335(b), (c)(2), (c)(3), and (d); District Rule 4703 (as amended 12/19/02), Sections 5.1.2, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. 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

46. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rule 1081 (as amended 12/16/93) as of the date of permit issuance. 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: C-1121-34-9 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
TG-1, 52.7 MMBTU/HR ALLISON GM 501-KB5 NATURAL GAS FIRED TURBINE WITH WATER INJECTION AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM DRIVING A 4 MW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. Unit shall be exclusively fired with natural gas containing no more than 1 grain of total sulfur per 100 standard cubic feet of gas. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Except during periods of startup, shutdown, and shakedown, emissions rates (three hour rolling average) shall not exceed any of the following: NOx (as NO2): 5 ppmv dry @ 15% O2, CO: 38 ppmv dry @ 15% O2. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit
3. Emissions shall not exceed any of the following limits: NOx (as NO2); 46.3 lb/day, CO: 107.5 lb/day, PM10: 8.3 lb/day; SOx (as SO2): 3.6 lb/day or VOC: 2.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081 (as amended 12/16/93). [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. If this unit is not fired on 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. [40 CFR 60.334(h)(3) and District Rule 1070] Federally Enforceable Through Title V Permit
7. If this unit is not fired on PUC-regulated natural gas, the 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(j)(2)(i)] Federally Enforceable Through Title V Permit
8. If this unit is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM D3246 or double GC for H2S and mercaptans, and fuel H2S content - gas detection tubes calibrated for H2S or other District-approved fuel sulfur detection method(s) or device(s). [40 CFR 60.335(b)(10)(2) and District Rule 1070] Federally Enforceable Through Title V Permit
9. If this unit is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Except during startup, shutdown, and reduced load periods, any one-hour period during which the average ammonia injection flowrate, as measured by the continuous monitoring system, falls outside the flowrate range as determined to demonstrate compliance shall be reported to the APCO. Each report shall include the average average water-to-fuel ratio, ammonia injection flowrate, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(j)(1)(i)] Federally Enforceable Through Title V Permit
11. Permittee shall install, operate and maintain in calibration, to within 5% accuracy, a monitoring system which continuously measures and records the water-to-fuel ratio and fuel consumption and which correlates the water-to-fuel ratio during initial source testing with the NOx concentration in the exhaust. [District NSR Rule, Rule 4703 and 40 CFR 60.334(a)] Federally Enforceable Through Title V Permit
12. Permittee shall install and operate a system which continuously measures and records elapsed time of turbine operation. [District Rule 40 CFR 60.334(a) and District Rule 4703] Federally Enforceable Through Title V Permit
13. Permittee shall install, operate and maintain in calibration a system which continuously measures and records ammonia injection flow rate, monitors ammonia pressure, and sounds an alarm if outside the acceptable operating pressure range. Ammonia injection flow rate and pressure shall be operated within the range recommended by SCR manufacturer and determined by performance tests such that the turbine maintains 95% or greater control efficiency or complies with the applicable NOx emission concentration limit. [District Rule 40 CFR 60.334(a) and District Rule 4703] Federally Enforceable Through Title V Permit
14. Gas turbine engine shall be equipped with water injection system for NOx control. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Gas turbine engine water injection rate shall be maintained at a water-to-fuel ratio documented to result in compliance with emission limits. Operator shall perform and submit an engineering performance test to demonstrate continuous compliance with emissions limits beyond the specified ratios. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
16. Gas turbine engine shall be equipped with continuously recording water to fuel injection rate monitoring system accurate to within +/- 5%. [District Rule 2201& 40 CFR 60.334(a)] Federally Enforceable Through Title V Permit
17. If ammonia injection system is inoperative for more than 1 hour, gas turbine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Evaporative cooler shall use only fresh and filtered water. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District Rule 1081] Federally Enforceable Through Title V Permit
20. The ammonia (NH3) emissions from the exhaust of the SCR system serving this gas turbine shall not exceed 20 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain accurate records of ammonia consumption. [District Rule 1070 and 4703] Federally Enforceable Through Title V Permit
22. Gas temperature at SCR catalyst section inlet shall be continuously monitored by operational temperature indicator. Inlet gas temperature to catalyst bed shall be maintained within range recommended by catalyst manufacturer and determined by performance tests. [40 CFR 60.334(a) and District Rule 4703] Federally Enforceable Through Title V Permit
23. During an initial shakedown period, except during periods of startup and shutdown, the emissions shall not exceed any of the following limits: 35 ppmvd NOx @ 15% O2 referenced as NO2. The shakedown period shall not exceed 90 calendar days from the initial startup of the unit under this permit. The shakedown period must be concluded prior to the applicable Rule 4703 compliance deadline selected for this unit. The permittee shall maintain a record of the date of initial operation of this unit, fuel combusted (scf/day) on daily basis, water-to-fuel ratio, and results of ammonia injection rate monitoring from CMS. These records shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Startup and shutdown of the gas turbine, as defined in this permit and in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours for startup and two hours for shutdown, per occurrence. Emission concentrations subsequent to this startup period shall not exceed the limits specified in this permit except during shutdown. [40 CFR Subpart A 60.2 and District Rule 4703] Federally Enforceable Through Title V Permit

25. The duration of reduced load shall not exceed a time period of one hour per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit

26. Daily records of NOx and CO emission calculations during days of startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. Maximum NOx (as NO2) and SOx (as SO2) emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmv-dry @ 15% O2, and 150 ppmv-dry @ 15% O2, respectively. [40 CFR 60.332(a)(2) & 60.333(a)] Federally Enforceable Through Title V Permit

28. The permittee shall monitor and record the stack concentration of NOx, CO, NH3, and O2 at least once every month in which a source test is not performed. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH3 monitoring shall be conducted utilizing gas detection tubes or a District approved equivalent method. 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 previous calendar month. [District Rule 4703] Federally Enforceable Through Title V Permit

29. If the NOx or CO concentrations corrected to 15% 02 as measured by the portable analyzer or the NH3 concentration, as measured by gas detection tubes or a District approved equivalent method, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continues to show emission limit violations after 1 hour of operation following 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 that is subject to enforcement action has occurred. 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 4703] Federally Enforceable Through Title V Permit

30. All NOx, CO, 02 and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and 02 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4703] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3 and 02 measurements, (2) the 02 concentration in percent by volume and the measured NOx, CO and NH3 concentrations corrected to 15% 02, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rule 4703] Federally Enforceable Through Title V Permit

32. A source test to demonstrate compliance with NOx, CO, and NH3 emission limits, and fuel sulfur content shall be performed within 60 days after the shakedown period has been completed for this modified unit. The appropriate ammonia injection rate, fuel consumption, ammonia to fuel ratio, water to fuel ratio, and any other associated operating parameter shall be continuously monitored and recorded during this test to establish acceptable operating ranges. Selective Catalytic Reduction (SCR) 95% control efficiency may be demonstrated as an alternative to compliance with the Rule 4703 NOx emissions concentration limit. [District Rules 2201, 40 CFR 60.334(g), 40 CFR 60.335(b), and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Source testing to measure exhaust gas NOx, CO, and NH3 concentrations and, if applicable, Selective Catalytic Reduction (SCR) control efficiency shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). Performance testing shall be conducted under conditions representative of normal operation. [40 CFR 60.335(b), District Rule 4703, District Rule 2520] Federally Enforceable Through Title V Permit

34. The owner or operator shall provide source test information annually regarding the exhaust gas NOx and CO concentration corrected to 15% O2 (dry). [District Rule 4703] Federally Enforceable Through Title V Permit

35. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or 20, CO (ppmv) - EPA Method 10 or 10B, stack gas oxygen - EPA Method 3 or 3A or 20, fuel gas sulfur content - ASTM D1072, D4468, or D3246 or double GC for H2S and mercaptans, fuel gas HHV and LHV - ASTM D3598, D1826 or D1945, Ammonia slip - BAAQMD method ST-1B. [40 CFR 60.335(b) and District Rules 1081 & 4703] Federally Enforceable Through Title V Permit

36. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

37. Performance testing shall be witnessed or authorized District personnel. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit

38. Permittee shall report the following emission exceedance to the District: emission rates of NOx & CO on a three-hour rolling average and NSPS emission rate on one hour average. [District Rule 1070, 2201 and 4703] Federally Enforceable Through Title V Permit

39. 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. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption for normal operation and for the startup/shutdown periods. This information may be recorded electronically. Daily entries in the operating log are not required for periods of non-operation. [District Rules 2520 & 4703] Federally Enforceable Through Title V Permit

40. Permittee shall maintain accurate records of all maintenance activities, periodic inspections, and repairs of SCR unit, water and NH3 injection systems, and their associated controller and instrumentation units. [District Rules 1070 and 4703] Federally Enforceable Through Title V Permit

41. Permittee shall comply in full with Rule 4001 (New Source Performance Standards, 40 CFR 60 Subpart GG) requirements, including notification, recordkeeping and monitoring requirements. [District Rule 4001] Federally Enforceable Through Title V Permit

42. The owner or operator shall maintain all records for a period of five years from the date of entry and shall make such records available to the APCO upon request. [District Rules 1080, 2201, & 4703, 6.2.4] 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: Fresno County Rules 108.1 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Fresno County Rule 406 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

45. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332(a)(2), (c), and (f), 60.333 (a) and (b); 60.334(a), (c)(1), (c)(2), and (c)(3), and 60.335(b), (c)(2), (c)(3), and (d); District Rule 4703 (as amended 12/19/02), Sections 5.1.2, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. 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

46. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rule 1081 (as amended 12/16/93) as of the date of permit issuance. 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: C-1121-38-8 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
CVR-1: 155 STEAM-DRIVE WELLS SERVED BY 170 HP CASING VAPOR RECOVERY SYSTEM WITH HEAT EXCHANGER E-100, FIN FAN COOLER E-110, SEPARATOR V-100, CONDENSATE PUMPS P-100 AND P-101, AND GAS COMPRESSOR SKID WITH COMPRESSOR C-10, FIN FAN COOLER E-10, SEPARATORS V-10 AND V-11 AND CONDENSATE PUMP P-10.

PERMIT UNIT REQUIREMENTS

1. Non-condensibles shall be exhausted into a working steam generator firebox or flare for combustion. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Casing vapor recovery system shall be operated to achieve at least 99% control efficiency. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
3. If the well casing vent is sealed or "shut-in", then the produced oil is to be routed only to tanks served by the vapor recovery system under permit #C-1121-45 with 99% control efficiency. [District NSR Rule and Rule 4401, 5.2] Federally Enforceable Through Title V Permit
4. VOC emissions shall not exceed 2.237 lb VOC/day per well. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit
6. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
7. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. [District Rule 4401, 5.1 and 5.2] Federally Enforceable Through Title V Permit
8. An operator shall not operate a steam-enhanced crude oil production well unless either of the following two conditions are met: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids is connected to a VOC collection and control system as defined in Section 3.0 of this Rule or 2) the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit
9. There shall be no open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, 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 lines. 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 4401, 5.2.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. There shall be no components with a major liquid leak as defined in Section 3.20.2 of Rule 4401. [District Rule 4401, 5.2.2.2] Federally Enforceable Through Title V Permit

11. There shall be no components with a gas leak of greater than 50,000 ppmv. [District Rule 4401, 5.2.2.3] Federally Enforceable Through Title V Permit

12. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

13. No leaking components (as defined in Section 5.2.2 of Rule 4401) may be used unless they have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

14. Each hatch shall be closed at all times except during attended repair, replacement, or maintenance operations, providing such activities are done as expeditiously as possible with minimal spillage or material and VOC emissions into the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

15. The operator shall comply with the requirements of Section 6.7 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

16. Unless otherwise specified in Section 5.4, an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

18. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

19. An operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: 1) An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. 2) Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

20. The operator shall also perform the following inspections: 1) An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. 2) An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service, and 3) Except for PRDs subject to the requirements of Section 5.8.4.1 of this Rule, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

21. Components located in unsafe areas shall be inspected and repaired at the next process unit turnaround and inaccessible components shall be inspected at least annually. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit

22. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Upon detection of a leak, an operator shall affix a readily visible weatherproof tag to that leaking component that includes the following information: 1) The date and time of leak detection; 2) The date and time of the leak measurement; 3) For a gaseous leak, the leak concentration in ppmv; 4) For a liquid leak, whether it is a major or minor liquid leak; and 5) Whether the component is an essential component, and unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

24. The tag shall remain affixed to the leaky component until all the following requirements are met: 1) The component is repaired or replaced, 2) The component is re-inspected as set forth in Section 6.3, and 3) The component is found to be in compliance with this Rule. [District Rule 4401, 5.5.2] Federally Enforceable Through Title V Permit

25. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

26. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the following three requirements as soon as practicable but not later than the time period specified in Table 4: 1) Repair or replace the leaking component, 2) Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or 3) Remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

27. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

28. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

29. The time of the initial leak detection shall be the start of the repair period specified in Table 3. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

30. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component 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, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

31. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

32. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

33. The operator of any steam-enhanced crude oil production well shall maintain an inspection log pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

34. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

35. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

37. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

38. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

39. 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 4401, 6.3.1] Federally Enforceable Through Title V Permit

40. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

41. Leak inspection, other than audio-visual, and 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 instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

42. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The operator shall maintain an inspection log in which the operator records at least all of the following for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type, 2) The location, type and name or description of each leaking component and description of any unit where the leaking component is found, 3) The date of leak detection and the method of leak detection, 4) For gaseous leaks, the leak concentration in ppmv and, for liquids leaks, whether the leak is major or minor, 5) The date of repair, replacement or removal from operation of leaking components, 6) The identity and location of essential components and critical components as defined in this Rule, found leaking, that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, 7) The methods 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 1 year after detection, whichever comes earlier, 8) The date or re-inspection and the leak concentration in ppmv after the component is repaired or replaced, 9) The inspectors name, business mailing address, and business telephone number, and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

44. The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit

45. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

46. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit Condition 2 on the Title V permit shall be deemed compliance with efficiency specification which have been waived by exhausting non-condensibles into a working steam generator firebox or flare for combustion. A permit shield is granted from there requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-39-11 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
CVR-2: 213 STEAM-DRIVE WELLS SERVED BY 140 HP CASING VAPOR RECOVERY SYSTEM WITH HEAT EXCHANGER E-200, FIN-FAN COOLER E-210, SEPARATOR V-200, CONDENSATE PUMPS P-200 & P-201, AND GAS COMPRESSOR SKID WITH COMPRESSOR C-20, FIN-FAN COOLER E-20, SEPARATORS V-20 & V-21, AND CONDENSATE PUMP P-20 AND 75 HP VAPOR COMPRESSOR SKID WITH OUTLET FIN-FAN COOLER, GAS LIQUID SEPARATORS, AND CONDENSATE PUMPS. RECOVERED VAPOR LINE CONNECTED TO RECOVERED VAPOR LINES OF PERMIT UNITS C-1121-116 & C-1121-114

PERMIT UNIT REQUIREMENTS

1. Non-condensibles shall be exhausted into a working steam generator firebox or flare for combustion. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. [District Rule 4401] Federally Enforceable Through Title V Permit
3. If the well casing vent is sealed or "shut-in", then the produced oil is to be routed only to tanks served by the vapor recovery system under permit #C-1121-45 with 99% control efficiency. [District NSR Rule and Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit
4. Permittee shall maintain a well roster listing all wells connected to the well vent vapor recovery system and which well casing vents are shut-in. The well roster shall be kept on site and shall be made available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
5. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
6. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.7.3] Federally Enforceable Through Title V Permit
7. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit
8. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Permittee shall maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that 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 an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit

10. VOC content of well vent vapor gas shall not exceed 10% by weight. If the VOC content of the well vent vapor gas is less than 10% by weight for 8 consecutive quarterly samplings per District approved plan, sampling frequency shall only be required annually. If an annual source test fails to show compliance, quarterly testing shall resume. [District Rules 2201 and 4401, 4.9] Federally Enforceable Through Title V Permit

11. The annual inspection requirements of Section 5.8.1 through 5.8.5 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10 wt. %) or less, as determined by the test methods in Section 6.3.5 of Rule 4401. [District Rule 4401, 4.9] Federally Enforceable Through Title V Permit

12. 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 4401 6.3.1] Federally Enforceable Through Title V Permit

13. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401 6.3.5] Federally Enforceable Through Title V Permit

14. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401 6.2.1] Federally Enforceable Through Title V Permit

15. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit

16. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted annually 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 instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401 6.3.3] Federally Enforceable Through Title V Permit

17. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401 5.7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

18. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to monitor component, or a critical component. [District Rule 4401 5.9.1] Federally Enforceable Through Title V Permit

19. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.2] Federally Enforceable Through Title V Permit

20. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.9.3] Federally Enforceable Through Title V Permit

21. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

22. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

23. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.5] Federally Enforceable Through Title V Permit

24. The time of the initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.6] Federally Enforceable Through Title V Permit

25. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component 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, whichever comes earlier. [District Rule 4401 5.9.7] Federally Enforceable Through Title V Permit

26. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

27. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 3 of Rule 4401. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

28. 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 with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.7.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.10 of Rule 4401. [District Rule 4401 6.2.5] Federally Enforceable Through Title V Permit
30. The results of gauge tank TVP testing conducted pursuant to Section 6.2.5 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401 6.1.10] Federally Enforceable Through Title V Permit
31. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.11] Federally Enforceable Through Title V Permit
32. Permittee shall maintain a written record of VOC content of the gas (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
33. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401 6.1.1] Federally Enforceable Through Title V Permit
34. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit
35. 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
36. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401 6.1.6] Federally Enforceable Through Title V Permit
37. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit
38. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit
39. All records required by this permit shall be maintained and retained on-site for a minimum of five (5) years and made available for District, ARB, and EPA inspection upon request. [District Rules 2520, 9.5.2 and 4401] Federally Enforceable Through Title V Permit
40. Compliance with permit Condition 4 of this permit (or Condition 2 on the Title V permit after Conditions 1 and 2 are removed) shall be deemed compliance with efficiency specification which have been waived by exhausting non-condensibles into a working steam generator firebox or flare for combustion. A permit shield is granted from there requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-41-28 **EXPIRATION DATE:** 12/31/2016

SECTION: 29 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
S-12, 62.5 MMBTU/HR THERMOTICS, NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR (S-12) WITH COEN QLN-ULN BURNER, FLUE GAS RECIRCULATION SERVED BY LO-COST H2S SCAVENGER SYSTEM AND SULFATREAT VESSELS SHARED WITH PERMIT UNITS C- 1121-17, '-18 AND '-19

PERMIT UNIT REQUIREMENTS

1. Fuel consumption for the steam generator shall not exceed 1,500 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combined quantity of well vent and tank vapor recovery gases combusted within steam generators '-17, '-18, '-19, and '-41, from the four CVR systems (C-1121-38, -39, -114, & -116) and the section 32 TVR system shall not exceed 1,300,000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Only natural gas, vapor recovery gas, or a combination of natural gas and vapor recovery gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
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. Lo-Cost H2S scavenging system shall be used whenever vapor recovery gas is fired in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following limits: NOx (as NO2): 14 ppmv @ 3% O2 or 0.017 lb/MMBtu (25.5 lb/day), CO: 43 ppmv @ 3%O2 or 0.032 lb/MMBtu (48.0 lb/day), PM10: 0.0076 lb/MMBtu (11.4 lb-PM10/day), or VOC: 0.008 lb/MMBtu (12.0 lb/day). [District Rules 2201, 4201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
8. When fired on PUC quality natural gas, the SOx emissions rate shall not exceed 0.00285 lb/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
9. When fired on gases other than PUC quality natural gas, the SOx emissions rate shall not exceed 9 ppmv @ 3% O2 or 0.015 lb/MMBtu (22.8 lb/day). [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. Combined emissions of SOx, calculated as SO2, from the steam generators and the flare (C-1121-17, -18, -19, -41, & -168) shall not exceed 28,580 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The sulfur content of treated waste gas exiting the H2S Scavenger System shall be determined on a daily basis by gas detector tube sampling. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The sulfur content of the waste gas exiting the sulfur treatment system shall be tested weekly for sulfur content and higher heating value. If compliance with the sulfur emission limits has been demonstrated for 8 consecutive weeks, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. Testing shall be by grab sample analysis by GC-FPD/TCD or other District approved methods for H2S and mercaptans performed in the laboratory and EPA Method 19. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
13. Daily SOx emissions from combustion of waste gas shall be calculated based on the waste gas sulfur content as determined by gas detector tube sampling or the most recent laboratory analysis, whichever is greater. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
14. When source or type of gas changes, sampling for sulfur content shall be conducted within one week. A change in fuel type is defined as changing between any of the following: PUC-Quality gas, unprocessed field gas, or any field gas with any specific level of pretreatment. [District Rule 2520] Federally Enforceable Through Title V Permit
15. At least once every 12 months, unit shall be stack tested to demonstrate compliance with the SOx emission limit required by this permit (ppmv @3 % O2) using EPA Method 6C, Method 8 or ARB Method 100. Stack testing for SOx emissions in not required if unit was fired only on PUC quality natural during the 12 months prior to the compliance testing anniversary date. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
16. 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 of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit
17. 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 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520 and 4305] Federally Enforceable Through Title V Permit
18. 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 and 4306] Federally Enforceable Through Title V Permit
19. Subject to the definitions and requirements of Section 5.3, District Rule 4306, emission factor limitations of this permit shall not apply during periods of startup, shutdown, or refractory curing. Duration of startup and shutdown shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining in the heat exchanger section of the unit, and shall not exceed 30 hours per occurrence. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
20. 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 and 4306] 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 Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. 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 and 4306] 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 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 and 4306] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). 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 4351] Federally Enforceable Through Title V Permit

25. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] 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 and 4306] Federally Enforceable Through Title V Permit

27. 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 and 4306] Federally Enforceable Through Title V Permit

28. 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

29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D 1072, D 4468, D 4084, D 3246, or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

30. NOx, and CO emissions shall be measured with annual source testing conducted by independent testing laboratory with sample collection by ARB certified testing laboratory and shall be witnessed or authorized by the District. [District Rule 1081 and Rule 2520] Federally Enforceable Through Title V Permit

31. 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

32. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the non-certified (non PUC/FERC regulated) natural gas being fired in the steam generator shall be determined using ASTM D 1072, D 4468, D 4084, D 3246, or double GC for H2S and mercaptans. [District Rule 2520] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Last Amended December 17, 1992), 4301 (Last Amended December 17, 1992), 4406 (Amended December 17, 1992), and 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

37. Permittee shall maintain daily record of all natural gas consumption including waste gas consumption, fuel sulfur content, calculated SOx emissions, supplier certifications and test results to show compliance with the conditions of this permit. The operator shall record daily amount and type (s) of fuel(s) combusted and all dates on which unit is fired on any non certified fuel and record specific type(s) of non certified fuel used. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit

38. 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. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-45-13 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
105,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK WITH 60 HP SHARED TANK VAPOR CONTROL SYSTEM SERVING TANKS C-1121-46, -79, -82 THROUGH 85, -87 THROUGH -90; HEATER TREATERS C-1121-22 THROUGH -26; 2 PRESSURE VESSELS (V200 & V350); AND 6 FWKO VESSELS (V301, V302, V311, V312, V313, AND V336) BLANKETED WITH TEOR AND CVR WASTE GAS (T-317)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The efficiency of any VOC destruction device shall be measured by EPA Method 18. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rule 2201 and District Rule 4623] Federally Enforceable Through Title V Permit
4. Non-condensibles shall be exhausted into a working steam generator firebox or flare for combustion. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Tank venting as due to maintenance activities, breakdowns, or power outages shall not exceed eight (8) hours per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Compressor suction and knockout drum liquids shall be piped only to vapor-controlled tanks. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
12. The pressure transmitters shall be inspected and maintained in good operating condition. The inspections may be conducted, as needed, on a quarterly basis. Replacing and repairing the pressure transmitters shall not exceed one hour per day. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit
14. A facility operator, upon detection of a leaking component, 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] Federally Enforceable Through Title V Permit
15. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit
16. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
17. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520] Federally Enforceable Through Title V Permit
18. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520] Federally Enforceable Through Title V Permit
19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520] Federally Enforceable Through Title V Permit
20. 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 Rule 4623] Federally Enforceable Through Title V Permit
21. The operator shall ensure that the vapor control system is functional and is operating at all times except during periods of vapor control system maintenance or power outages. [District Rule 2520] Federally Enforceable Through Title V Permit
22. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

27. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for District inspection upon request for a period of at least five years. [District Rule 2201 and Rule 2520] Federally Enforceable Through Title V Permit

33. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District Rule 2201] Federally Enforceable Through Title V Permit

34. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

35. 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 CARB and US EPA, shall be used to determine the TVP of crude oil with an API gravity of 26 degrees or less, or for any API gravity that is specified in this test method. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

37. This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

38. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

39. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka, and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

40. Compliance with the conditions in this permit shall be deemed compliance with efficiency specification which have been waived by exhausting non-condensibles into a working steam generator firebox or flare for combustion. A permit shield is granted from there requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-46-4 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
5,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK SERVED BY A SHARED VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (T-318)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
4. 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 Rule 4623] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

26. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

27. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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

30. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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: C-1121-72-9 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
33,293 GAL FWKO PRESSURE VESSEL USED TO SEPARATE PRODUCED OIL FROM WATER SERVED BY A PRESSURE RELIEF VALVE TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-301)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. 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
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. 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
5. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
6. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. FWKO unit pressure relief valve (PRV) shall be inspected on an annual basis. During the inspections, the PRV can be removed from the FWKO unit and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the varec. [District Rule 2080] Federally Enforceable Through Title V Permit

18. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the vessel volume is displaced; or 3) Vent the vessel to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = vessel volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The vessel sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Prior to reintroducing crude oil/water to the vessel, the vessel shall be filled to the maximum possible level with water, the vessel vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date vessel cleaning was completed, the procedure used to vent vessel vapors prior to opening, the method of vessel cleaning used, and a description of internal and external vessel repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

27. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

28. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

29. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-73-9 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
33,293 GAL FWKO PRESSURE VESSEL USED TO SEPARATE PRODUCED OIL FROM WATER SERVED BY A PRESSURE RELIEF VALVE TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-302)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. 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
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. 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
5. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
6. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. FWKO unit pressure relief valve (PRV) shall be inspected on an annual basis. During the inspections, the PRV can be removed from the FWKO unit and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the varec. [District Rule 2080] Federally Enforceable Through Title V Permit

18. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the vessel volume is displaced; or 3) Vent the vessel to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = vessel volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The vessel sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Prior to reintroducing crude oil/water to the vessel, the vessel shall be filled to the maximum possible level with water, the vessel vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date vessel cleaning was completed, the procedure used to vent vessel vapors prior to opening, the method of vessel cleaning used, and a description of internal and external vessel repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

27. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

28. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

29. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-74-4 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
#T-1, 500 BBL BAKER TANK USED TO STORE BRINE OR OIL AND WATER FROM OIL PRODUCTION

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to operate at Section 32, T19S, R15E and Section 14, T20S, R14E. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Unit shall not be located within 1,000 feet of any K-12 school. [CH&SC 42301.6]
3. Permittee shall notify District Compliance Division of each location at which the unit 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. True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
5. Permittee shall conduct True Vapor Pressure (TVP) 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
6. 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
7. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
8. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
10. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

12. The operator shall keep accurate records of types, storage temperature and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 4623, Section 6.1] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-77-3 **EXPIRATION DATE:** 12/31/2016

SECTION: 26 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
#T-103, 3,000 BBL (126,000 GAL) STOCK TANK (LUBE SIDE). DIAMETER - 29.7 FEET. COLOR - TAN/BEIGE

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct True Vapor Pressure (TVP) 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
3. 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The operator shall keep accurate records of types, storage temperature and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 4623, Section 6.1] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-78-3 **EXPIRATION DATE:** 12/31/2016

SECTION: 26 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
#T-104, 3000 BBL (126,000 GAL) STOCK TANK (REFINED SIDE). DIAMETER - 29.7 FEET. COLOR - TAN/BEIGE

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct True Vapor Pressure (TVP) 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
3. 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-79-4 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
10,000 BBL (420,000 GALLON) STOCK TANK WITH PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (ZONE 1, T-316)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
4. 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 Rule 4623] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit
11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
13. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
16. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
18. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
19. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
20. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

26. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

27. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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

30. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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: C-1121-82-6 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
2,800 BBL SKIM TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-320)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
4. 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 Rule 4623] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

21. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

26. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

27. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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

30. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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: C-1121-83-6 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
2,800 BBL SKIM TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-321)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
4. 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 Rule 4623] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

21. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

26. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

27. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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

30. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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: C-1121-84-6 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
250 BBL DRAIN TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-323)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
4. 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 Rule 4623] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

21. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

26. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

27. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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

30. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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: C-1121-85-6 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
250 BBL DRAIN TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-324)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
4. 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 Rule 4623] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

21. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

26. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

27. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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

30. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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: C-1121-87-6 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
400 BBL DISPOSAL TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-322)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
4. 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 Rule 4623] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

21. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

26. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

27. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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

30. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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: C-1121-88-4 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
3,000 BBL WATER CLARIFIER TANK SERVED BY TANK VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (T-400)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
4. 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 Rule 4623] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

21. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

26. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

27. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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

30. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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: C-1121-89-4 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
5,000 BBL FILTERED WATER TANK SERVED BY TANK VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (T-600)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
4. 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 Rule 4623] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

21. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

26. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

27. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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

30. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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: C-1121-90-4 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
5,000 BBL SOFT WATER TANK SERVED BY TANK VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (T-810)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
3. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
4. 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 Rule 4623] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

21. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

26. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

27. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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

30. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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: C-1121-91-5 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
25,912 GAL WATER CLARIFIER PRESSURE VESSEL SERVED BY A PRESSURE REGULATOR VENTED TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-200)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
3. 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 Rule 4623] Federally Enforceable Through Title V Permit
4. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. A facility operator, upon detection of a leaking component, 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, 9.4.2] Federally Enforceable Through Title V Permit
10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. 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 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Clarifier unit pressure relief valve (PRV) shall be inspected on an annual basis. During the inspections, the PRV can be removed from the clarifier unit and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the PRV. [District Rule 2080] Federally Enforceable Through Title V Permit

16. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the vessel volume is displaced; or 3) Vent the vessel to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = vessel volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

21. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The vessel sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
23. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
24. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
25. This unit commenced construction, modification, or reconstruction before May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb 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
26. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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: C-1121-93-2 **EXPIRATION DATE:** 12/31/2016

EQUIPMENT DESCRIPTION:
20 UNCONTROLLED CYCLIC/STEAM DRIVE WELLS.

PERMIT UNIT REQUIREMENTS

1. Label each uncontrolled steam drive well for identification. [District Rule 1070]
2. The wells shall be located more than 1000 feet from an existing well vent vapor control system. [District Rule 4401] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-100-8 **EXPIRATION DATE:** 12/31/2016

SECTION: 1 **TOWNSHIP:** 20S **RANGE:** 14E

EQUIPMENT DESCRIPTION:
TRICO-SUPERIOR HEATER TREATER, HT-658, WITH AN UNCONTROLLED 5,000 BBL VESSEL AND PERMIT-EXEMPT BURNER (LESS THAN 5 MMBTU/HR, PEER-4-0)

PERMIT UNIT REQUIREMENTS

1. 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 Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-101-8 **EXPIRATION DATE:** 12/31/2016

SECTION: 1 **TOWNSHIP:** 20S **RANGE:** 14E

EQUIPMENT DESCRIPTION:
HYDROTEK HEATER TREATER, HT-804, AND WITH AN UNCONTROLLED 5,000 BBL VESSEL AND PERMIT-EXEMPT BURNER (LESS THAN 5 MMBTU/HR, PEER-2-0)

PERMIT UNIT REQUIREMENTS

1. 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 Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-105-8 **EXPIRATION DATE:** 12/31/2016

SECTION: 31 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
TRICO-SUPERIOR HEATER TREATER, HT-659, WITH AN UNCONTROLLED 5,000 BBL VESSEL AND PERMIT-EXEMPT BURNER (LESS THAN 5 MMBTU/HR, PEER-3-0)

PERMIT UNIT REQUIREMENTS

1. 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 Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-106-8 **EXPIRATION DATE:** 12/31/2016

SECTION: 31 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
HYDROTEK HEATER TREATER, HT-808, WITH AN UNCONTROLLED 5,000 BBL VESSEL AND PERMIT-EXEMPT BURNER (LESS THAN 5 MMBTU/HR, PEER-5-0)

PERMIT UNIT REQUIREMENTS

1. 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 Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-114-9 **EXPIRATION DATE:** 12/31/2016

SECTION: 7 **TOWNSHIP:** 20S **RANGE:** 14E

EQUIPMENT DESCRIPTION:
MS-714, TEOR OPERATION SERVING 184 WELLS UTILIZING; A NORTH PENN ZEIR CVR SYSTEM WITH TWO CONDENSATE KO VESSELS, A CONDENSATE KO DRUM, TWO COMPRESSOR, TWO FIN FAN EXCHANGER AND CONNECTED TO CASING VAPOR RECOVERY SYSTEMS C-1121-39 & C-1121-116

PERMIT UNIT REQUIREMENTS

1. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit
2. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
3. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. [District Rule 4401, 5.1 and 5.2] Federally Enforceable Through Title V Permit
4. An operator shall not operate a steam-enhanced crude oil production well unless either of the following two conditions are met: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids is connected to a VOC collection and control system as defined in Section 3.0 of this Rule or 2) the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit
5. There shall be no open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, 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 lines. 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 4401, 5.2.2.1] Federally Enforceable Through Title V Permit
6. There shall be no components with a major liquid leak as defined in Section 3.20.2 of Rule 4401. [District Rule 4401, 5.2.2.2] Federally Enforceable Through Title V Permit
7. There shall be no components with a gas leak of greater than 50,000 ppmv. [District Rule 4401, 5.2.2.3] Federally Enforceable Through Title V Permit
8. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. No leaking components (as defined in Section 5.2.2 of Rule 4401) may be used unless they have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
10. Each hatch shall be closed at all times except during attended repair, replacement, or maintenance operations, providing such activities are done as expeditiously as possible with minimal spillage or material and VOC emissions into the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit
11. The operator shall comply with the requirements of Section 6.7 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit
12. Unless otherwise specified in Section 5.4, an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
13. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit
14. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit
15. An operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: 1) An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. 2) Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit
16. The operator shall also perform the following inspections: 1) An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. 2) An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service, and 3) Except for PRDs subject to the requirements of Section 5.8.4.1 of this Rule, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit
17. Components located in unsafe areas shall be inspected and repaired at the next process unit turnaround and inaccessible components shall be inspected at least annually. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit
18. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit
19. Upon detection of a leak, an operator shall affix a readily visible weatherproof tag to that leaking component that includes the following information: 1) The date and time of leak detection; 2) The date and time of the leak measurement; 3) For a gaseous leak, the leak concentration in ppmv; 4) For a liquid leak, whether it is a major or minor liquid leak; and 5) Whether the component is an essential component, and unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit
20. The tag shall remain affixed to the leaky component until all the following requirements are met: 1) The component is repaired or replaced, 2) The component is re-inspected as set forth in Section 6.3, and 3) The component is found to be in compliance with this Rule. [District Rule 4401, 5.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

22. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the following three requirements as soon as practicable but not later than the time period specified in Table 4: 1) Repair or replace the leaking component, 2) Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or 3) Remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

23. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

24. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

25. The time of the initial leak detection shall be the start of the repair period specified in Table 3. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

26. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component 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, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

27. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

28. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

29. The operator of any steam-enhanced crude oil production well shall maintain an inspection log pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

30. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

31. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

32. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

33. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

35. 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 4401, 6.3.1] Federally Enforceable Through Title V Permit

36. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

37. Leak inspection, other than audio-visual, and 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 instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

38. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

39. The operator shall maintain an inspection log in which the operator records at least all of the following for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type, 2) The location, type and name or description of each leaking component and description of any unit where the leaking component is found, 3) The date of leak detection and the method of leak detection, 4) For gaseous leaks, the leak concentration in ppmv and, for liquids leaks, whether the leak is major or minor, 5) The date of repair, replacement or removal from operation of leaking components, 6) The identity and location of essential components and critical components as defined in this Rule, found leaking, that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, 7) The methods 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 1 year after detection, whichever comes earlier, 8) The date or re-inspection and the leak concentration in ppmv after the component is repaired or replaced, 9) The inspectors name, business mailing address, and business telephone number, and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

40. The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit

41. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

43. Compliance with permit Condition 3 on the Title V permit shall be deemed compliance with efficiency specification which have been waived by exhausting non-condensibles into a working steam generator firebox or flare for combustion. A permit shield is granted from there requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

45. Annual performance tests for hydrocarbon must be conducted and reported in accordance with the test methods set for the in 40 CFR 60, Part 60.8 and Appendix A. Performance tests for hydrocarbon shall be conducted using procedures approved in advance by the EPA in writing. The EPA and APCO must be notified in writing at least 30 day prior to conduction such tests. [PSD 4-4-8, SJ77-45 condition IX.H.1 and IXH.2] Federally Enforceable Through Title V Permit

46. Non-condensibles shall be exhausted into a working steam generator firebox or flare for combustion. [District NSR Rule] Federally Enforceable Through Title V Permit

47. VOC emissions shall not exceed 2.222 lb VOC/day per well. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-116-8 **EXPIRATION DATE:** 12/31/2016

SECTION: 31 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
MS-717, TEOR OPERATION SERVING 240 WELLS WITH VAPOR CONTROL SYSTEM INCLUDING CONDENSATE KO DRUM AND CONDENSATE PUMP AND RECOVERED VAPOR LINE CONNECTED TO RECOVERED VAPOR LINES OF PERMIT UNITS C-1121-39 AND C-1121-114

PERMIT UNIT REQUIREMENTS

1. Non-condensibles shall be exhausted into a working steam generator firebox or flare for combustion. [District NSR Rule] Federally Enforceable Through Title V Permit
2. VOC emissions shall not exceed 2.222 lb VOC/day per well. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit
4. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
5. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. [District Rule 4401, 5.1 and 5.2] Federally Enforceable Through Title V Permit
6. An operator shall not operate a steam-enhanced crude oil production well unless either of the following two conditions are met: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids is connected to a VOC collection and control system as defined in Section 3.0 of this Rule or 2) the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit
7. There shall be no open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, 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 lines. 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 4401, 5.2.2.1] Federally Enforceable Through Title V Permit
8. There shall be no components with a major liquid leak as defined in Section 3.20.2 of Rule 4401. [District Rule 4401, 5.2.2.2] Federally Enforceable Through Title V Permit
9. There shall be no components with a gas leak of greater than 50,000 ppmv. [District Rule 4401, 5.2.2.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
11. No leaking components (as defined in Section 5.2.2 of Rule 4401) may be used unless they have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
12. Each hatch shall be closed at all times except during attended repair, replacement, or maintenance operations, providing such activities are done as expeditiously as possible with minimal spillage or material and VOC emissions into the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit
13. The operator shall comply with the requirements of Section 6.7 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit
14. Unless otherwise specified in Section 5.4, an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
15. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit
16. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit
17. An operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: 1) An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. 2) Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit
18. The operator shall also perform the following inspections: 1) An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. 2) An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service, and 3) Except for PRDs subject to the requirements of Section 5.8.4.1 of this Rule, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit
19. Components located in unsafe areas shall be inspected and repaired at the next process unit turnaround and inaccessible components shall be inspected at least annually. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit
20. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. Upon detection of a leak, an operator shall affix a readily visible weatherproof tag to that leaking component that includes the following information: 1) The date and time of leak detection; 2) The date and time of the leak measurement; 3) For a gaseous leak, the leak concentration in ppmv; 4) For a liquid leak, whether it is a major or minor liquid leak; and 5) Whether the component is an essential component, and unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

22. The tag shall remain affixed to the leaky component until all the following requirements are met: 1) The component is repaired or replaced, 2) The component is re-inspected as set forth in Section 6.3, and 3) The component is found to be in compliance with this Rule. [District Rule 4401, 5.5.2] Federally Enforceable Through Title V Permit

23. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

24. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the following three requirements as soon as practicable but not later than the time period specified in Table 4: 1) Repair or replace the leaking component, 2) Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or 3) Remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

25. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

26. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

27. The time of the initial leak detection shall be the start of the repair period specified in Table 3. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

28. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component 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, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

29. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

30. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

31. The operator of any steam-enhanced crude oil production well shall maintain an inspection log pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

32. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

33. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

35. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

36. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

37. 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 4401, 6.3.1] Federally Enforceable Through Title V Permit

38. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

39. Leak inspection, other than audio-visual, and 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 instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

40. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. The operator shall maintain an inspection log in which the operator records at least all of the following for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type, 2) The location, type and name or description of each leaking component and description of any unit where the leaking component is found, 3) The date of leak detection and the method of leak detection, 4) For gaseous leaks, the leak concentration in ppmv and, for liquids leaks, whether the leak is major or minor, 5) The date of repair, replacement or removal from operation of leaking components, 6) The identity and location of essential components and critical components as defined in this Rule, found leaking, that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, 7) The methods 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 1 year after detection, whichever comes earlier, 8) The date or re-inspection and the leak concentration in ppmv after the component is repaired or replaced, 9) The inspectors name, business mailing address, and business telephone number, and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

42. The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit

43. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

44. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

45. Compliance with permit Condition 2 on the Title V permit shall be deemed compliance with efficiency specification which have been waived by exhausting non-condensibles into a working steam generator firebox or flare for combustion. A permit shield is granted from there requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Annual performance tests for hydrocarbon must be conducted and reported in accordance with the test methods set for the in 40 CFR 60, Part 60.8 and Appendix A. Performance tests for hydrocarbon shall be conducted using procedures approved in advance by the EPA in writing. The EPA and APCO must be notified in writing at least 30 day prior to conduction such tests. [PSD 4-4-8, SJ77-45 condition IX.H.1 and IX.H.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-123-3 **EXPIRATION DATE:** 12/31/2016

SECTION: 1 **TOWNSHIP:** 20S **RANGE:** 14E

EQUIPMENT DESCRIPTION:
210,000 GALLON (5000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14464) WITH DIAMETER 39', HEIGHT 24'

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct True Vapor Pressure (TVP) 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
3. 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The operator shall keep accurate records of types, storage temperature and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 4623, Section 6.1] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-124-3 **EXPIRATION DATE:** 12/31/2016

SECTION: 1 **TOWNSHIP:** 20S **RANGE:** 14E

EQUIPMENT DESCRIPTION:
210,000 GALLON (5000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14465) WITH DIAMETER 39', HEIGHT 24'

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct True Vapor Pressure (TVP) 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
3. 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-137-3 **EXPIRATION DATE:** 12/31/2016

SECTION: 14 **TOWNSHIP:** 20S **RANGE:** 14E

EQUIPMENT DESCRIPTION:
42,000 GALLON (1000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14385) WITH DIAMETER 21', HEIGHT 16'

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct True Vapor Pressure (TVP) 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
3. 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-138-3 **EXPIRATION DATE:** 12/31/2016

SECTION: 14 **TOWNSHIP:** 20S **RANGE:** 14E

EQUIPMENT DESCRIPTION:
42,000 GALLON (1000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14386) WITH DIAMETER 21', HEIGHT 16'

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct True Vapor Pressure (TVP) 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
3. 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-149-3 **EXPIRATION DATE:** 12/31/2016

SECTION: 31 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
210,000 GALLON (5000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14466) WITH DIAMETER 39', HEIGHT 24'

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct True Vapor Pressure (TVP) 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
3. 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-150-3 **EXPIRATION DATE:** 12/31/2016

SECTION: 31 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
210,000 GALLON (5000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14467) WITH DIAMETER 39', HEIGHT 24'

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct True Vapor Pressure (TVP) 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
3. 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. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, 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 of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall maintain records of TVP and API gravity testing. These records shall include the tank identification number, PTO 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
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The operator shall keep accurate records of types, storage temperature and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 4623, Section 6.1] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-168-11 **EXPIRATION DATE:** 12/31/2016

EQUIPMENT DESCRIPTION:
7.16 MMBTU/HR FLARE TO BE USED TO INCINERATE NATURAL, WELL CASING, AND VAPOR RECOVERY GAS DURING MAINTENANCE OF FOUR 62.5 MMBTU/HR STEAM GENERATORS (C-1121-17, -18, -19, AND -41)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4311. [District Rule 4311] Federally Enforceable Through Title V Permit
3. The operator shall permanently disconnect the fuel supply line serving this unit. [District Rule 4311] Federally Enforceable Through Title V Permit
4. 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
5. Only PUC-quality natural gas or a combination of natural gas and vapor recovery gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. Fuel consumption for the flare shall not exceed 1.35 MMscf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Combined exhaust gases combusted within steam generators '-17, '-18, '-19, and '-41, from the four CVR systems (C-1121-38, -39, -114, & -116) and the section 32 TVR system shall not exceed 1,300,000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. When fired only on natural gas, emissions from the flare shall not exceed any of the following limits: 0.008 lb-PM10/MMBtu; 0.00285 lb-SOx/MMBtu calculated as SO2; 0.068 lb-NOx/MMBtu calculated as NO2, or 30 ppmv @ 3% O2; 0.063 lb-VOC/MMBtu, or 0.37 lb-CO/MMBtu. [District NSR Rules, Rule 4201 & Rule 4301] Federally Enforceable Through Title V Permit
10. When fired only on waste gas, emissions from the flare shall not exceed any of the following limits: 0.0.008 lb-PM10/MMBtu; 3.31lb-SOx/MMBtu calculated as SO2; 0.068 lb-NOx/MMBtu calculated as NO2, or 30 ppmv @ 3% O2; 0.063 lb-VOC/MMBtu, or 0.37 lb-CO/MMBtu. [District NSR Rules, Rule 4201 & Rule 4301] Federally Enforceable Through Title V Permit
11. 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]
12. Combined emissions of SOx, calculated as SO2, from the steam generators and the flare (C-1121-17, -18, -19, -41, & -168) shall not exceed 28,580 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The sulfur content of treated waste gas exiting the H2S Scavenger System shall not exceed 5000 ppmv. Sulfur content shall be determined on a daily basis by gas detector tube sampling. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Lo-Cost H2S scavenging system shall be used whenever vapor recovery gas is fired in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Operation of this flare shall only occur when steam generators C-1121-17, -18,-19, and -41 are all shut down due to maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
17. The 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] Federally Enforceable Through Title V Permit
18. 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. 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] Federally Enforceable Through Title V Permit
19. Flare gas pressure shall be greater than or equal to 5 psig. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Gas line to flare shall be equipped with operational, volumetric flow rate indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Operation of the flare shall not exceed 48 hours per calendar quarter or 192 hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Records of operating hours, sulfur content, and gas volume flared shall be maintained, retained on the premises for at least five years, and be made available for District inspection on request. [District Rule 2201] Federally Enforceable Through Title V Permit

ATTACHMENT C

Permits to Operate and Authority to Construct Permits for C-1121-170 and -171

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-170-0 **EXPIRATION DATE:** 12/31/2016

EQUIPMENT DESCRIPTION:
85 MMBTU/HR NATURAL GAS-FIRED PCL CONSTRUCTION STEAM GENERATOR WITH A FIVES NORTH AMERICAN 4231-85-GLE LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM (PENN ZIER #14)

PERMIT UNIT REQUIREMENTS

1. The steam generator is approved to operate at the following locations: Section 1, T20S, R14E and Section 7, T20S, R15E. [District Rules 2201 and 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [District Rule 2201 and 40 CFR 60.48c (g)]
4. The unit shall only be fired on natural gas with a maximum sulfur content of 1.0 gr S/100 scf. [District Rules 2201 and 4320]
5. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320]
6. If the unit is not fired on 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 Rules 2201 and 4320]
7. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320]
8. If the unit is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the unit shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2201]
9. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. [District Rules 4305, 4306, and 4320]
10. Duration of refractory curing shall not exceed 30 hours per each occurrence. [District Rules 4305, 4306, and 4320]
11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, 4405, 4406, and 4801]
12. Except during startup, shutdown, or refractory curing, emissions rates from the unit shall not exceed any of the following limits: 7 ppmv NOx @ 3% O2 or 0.0084 lb-NOx/MMBtu, 0.005 lb-PM10/MMBtu, 25 ppmv CO @ 3% O2 or 0.0182 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing to measure NOx and CO 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 4305, 4306 and 4320]
14. 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. Unless otherwise 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]
15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
16. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320]
17. 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]
18. 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]
19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; Stack gas moisture content - EPA Method 4; SOx - EPA Method 6C or 8 or ARB Method 100; fuel gas sulfur as H2S content - EPA Method 11 or 15; and fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rule 1081, 4305, 4306, 4320, and 4351]
20. 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]
21. 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]
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 Rules 4305, 4306 and 4320]
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 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 4305, 4306, and 4320]
25. Permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [District Rule 2201 and 40 CFR 60.48c (g)]
26. Permittee shall maintain records of duration of each start-up and shutdown, and refractory curing. [District Rule 4320]
27. 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. [District Rules 1070, 4305, 4306, 4320, and 40 CFR 60.48c (i)]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-171-0 **EXPIRATION DATE:** 12/31/2016

EQUIPMENT DESCRIPTION:
85 MMBTU/HR NATURAL GAS-FIRED PCL CONSTRUCTION STEAM GENERATOR WITH A FIVES NORTH AMERICAN 4231-85-GLE LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM (PENN ZIER #13)

PERMIT UNIT REQUIREMENTS

1. The steam generator is approved to operate at the following locations: Section 1, T20S, R14E and Section 7, T20S, R15E. [District Rules 2201 and 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [District Rule 2201 and 40 CFR 60.48c (g)]
4. The unit shall only be fired on natural gas with a maximum sulfur content of 1.0 gr S/100 scf. [District Rules 2201 and 4320]
5. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320]
6. If the unit is not fired on 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 Rules 2201 and 4320]
7. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320]
8. If the unit is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the unit shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2201]
9. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. [District Rules 4305, 4306, and 4320]
10. Duration of refractory curing shall not exceed 30 hours per each occurrence. [District Rules 4305, 4306, and 4320]
11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, 4405, 4406, and 4801]
12. Except during startup, shutdown, or refractory curing, emissions rates from the unit shall not exceed any of the following limits: 7 ppmv NOx @ 3% O2 or 0.0084 lb-NOx/MMBtu, 0.005 lb-PM10/MMBtu, 25 ppmv CO @ 3% O2 or 0.0182 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing to measure NOx and CO 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 4305, 4306 and 4320]

14. 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. Unless otherwise 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]

15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

16. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320]

17. 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]

18. 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]

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; Stack gas moisture content - EPA Method 4; SOx - EPA Method 6C or 8 or ARB Method 100; fuel gas sulfur as H2S content - EPA Method 11 or 15; and fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rule 1081, 4305, 4306, 4320, and 4351]

20. 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]

21. 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]

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 Rules 4305, 4306 and 4320]

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 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 4305, 4306, and 4320]
25. Permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [District Rule 2201 and 40 CFR 60.48c (g)]
26. Permittee shall maintain records of duration of each start-up and shutdown, and refractory curing. [District Rule 4320]
27. 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. [District Rules 1070, 4305, 4306, 4320, and 40 CFR 60.48c (i)]

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO C-1121-170-0 **ISSUANCE DATE** 12/05/2013

LEGAL OWNER OR OPERATOR AERA ENERGY LLC
MAILING ADDRESS 10000 MING AVE
P O BOX 11164
BAKERSFIELD CA 93389 1164

LOCATION HEAVY OIL PRODUCTION
FRESNO COUNTY CA

EQUIPMENT DESCRIPTION
85 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER FIVES NORTH AMERICAN 4231 85 GLE LOW NOX BURNER OR EQUIVALENT AND A FLUE GAS RECIRCULATION SYSTEM (PENN ZIER #1)

CONDITIONS

1. Contemporaneous with the startup of this unit the operator shall provide written notification to the District and EPA which includes a brief description of the change, the date the change occurred, any change in emissions the pollutants emitted and any new applicable requirement as a result of this change [District Rule 2520]
2. Permit to Operate C-1121 11-9 shall be surrendered to the District and the associated equipment shall be removed or rendered inoperable not later than the date of initial operation of this emissions unit [District Rule 2201]
3. The steam generator is approved to operate at the following locations Section 1 T20S R14E and Section 7 T20S, R15E [District Rules 2201 and 4102]
4. Prior to operating equipment under this Authority to Construct permittee shall surrender NOx emission reduction credits for the following quantities of emissions 1st quarter - 1 563 lb 2nd quarter - 1,564 lb, 3rd quarter - 1,564 lb, and fourth quarter 1 564 lb Offsets shall be provided at the applicable offset ratio specified in Table 4 2 of Rule 2201 (as amended 4/21/11) [District Rule 2201]
5. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions 1st quarter - 1 023 lb 2nd quarter - 1 024 lb, 3rd quarter - 1 024 lb and fourth quarter 1 024 lb Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11) [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230 5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT This is NOT a PERMIT TO OPERATE Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans specifications and conditions of this Authority to Construct and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District Unless construction has commenced pursuant to Rule 2050 this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance The applicant is responsible for complying with all laws ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

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DAVID WARNER Director of Permit Services
C-1121-170-0 Dec 5 2013 5 10PM – TOMS Joint Inspection NOT Req rag

6 ERC Certificate Numbers C-681-2 and C-679-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct [District Rule 2201]

7 The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment [District Rule 2201]

8 The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters [District Rule 2201]

9 Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct [District Rule 2201]

10 No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment [District Rule 2201]

11 No air contaminant shall be released into the atmosphere which causes a public nuisance [District Rule 4102]

12 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]

13 Particulate matter emissions shall not exceed 0 1 grains/dscf in concentration [District Rule 4201]

14 A non resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained [District Rule 2201 and 40 CFR 60 48c (g)]

15 The unit shall only be fired on natural gas with a maximum sulfur content of 1 0 gr S/100 scf [District Rules 2201 and 4320]

16 If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value [District Rule 4320]

17 If the unit is not fired on 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 Rules 2201 and 4320]

18 If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source The sulfur content of the fuel shall be determined using the test methods referenced in this permit [District Rule 4320]

19 If the unit is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the unit shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246 [District Rule 2201]

20 Duration of start-up and shutdown shall not exceed 2 hours each per occurrence [District Rules 4305, 4306, and 4320]

21 Duration of refractory curing shall not exceed 30 hours per each occurrence [District Rules 4305, 4306, and 4320]

22 Emission rates during startup, shutdown and refractory curing shall not exceed particulate matter - 10 pounds per hour, or 0 1 grains/dscf calculated to 12% CO2, sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0 11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan, NO2 - 140 pounds per hour or 0 14 pounds per MMBtu [District Rules 4101, 4102, 4301, 4405, 4406, and 4801]

CONDITIONS CONTINUE ON NEXT PAGE

23 Except during startup, shutdown, or refractory curing, emissions rates from the unit shall not exceed any of the following limits 7 ppmv NOx @ 3% O2 or 0 0084 lb-NOx/MMBtu, 0 005 lb-PM10/MMBtu, 25 ppmv CO @ 3% O2 or 0 0182 lb-CO/MMBtu, or 0 0055 lb-VOC/MMBtu [District Rules 2201, 4305, 4306, 4320]

24 A source test to demonstrate compliance with NOx and CO emission limits shall be performed within 60 days of initial startup of this unit [District Rules 2201 and 4320]

25 Source testing to measure NOx and CO 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 4305, 4306 and 4320]

26 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 Unless otherwise 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]

27 The results of each source test shall be submitted to the District within 60 days thereafter [District Rule 1081]

28 The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance [District Rules 4305, 4306 and 4320]

29 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]

30 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]

31 The following test methods shall be used NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, Stack gas moisture content - EPA Method 4, SOx - EPA Method 6C or 8 or ARB Method 100, fuel gas sulfur as H2S content - EPA Method 11 or 15, and fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 [District Rule 1081, 4305, 4306, 4320, and 4351]

32 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]

33 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]

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 Rules 4305, 4306 and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

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 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]

36 Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 [District Rules 4305, 4306, and 4320]

37 Permittee shall submit notification to the District of the date of construction, anticipated startup, and actual startup Notifications shall be postmarked no later than 30 days after construction and 15 days after actual startup The notifications shall include the design heat input and identification of fuels for this permit unit [40 CFR 60 48c (a)]

38 Permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator [District Rule 2201 and 40 CFR 60 48c (g)]

39 Permittee shall maintain records of duration of each start-up and shutdown, and refractory curing [District Rule 4320]

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 [District Rules 1070, 4305, 4306, 4320, and 40 CFR 60 48c (i)]

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO C 1121-171 0 **ISSUANCE DATE** 12/05/2013

LEGAL OWNER OR OPERATOR AERA ENERGY LLC
MAILING ADDRESS 10000 MING AVE
P O BOX 11164
BAKERSFIELD CA 93389-1164

LOCATION HEAVY OIL PRODUCTION
FRESNO COUNTY CA

EQUIPMENT DESCRIPTION
85 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER FIVES NORTH AMERICAN 4231 85-GLE LOW NOX BURNER OR EQUIVALENT AND A FLUE GAS RECIRCULATION SYSTEM (PENN ZIER #2)

CONDITIONS

1 Contemporaneous with the startup of this unit the operator shall provide written notification to the District and EPA which includes a brief description of the change the date the change occurred any change in emissions, the pollutants emitted, and any new applicable requirement as a result of this change [District Rule 2520]

2 Permit to Operate C 1121-11 9 shall be surrendered to the District and the associated equipment shall be removed or rendered inoperable not later than the date of initial operation of this emissions unit [District Rule 2201]

3 The steam generator is approved to operate at the following locations Section 1 T20S R14E and Section 7, T20S, R15E [District Rules 2201 and 4102]

4 Prior to operating equipment under this Authority to Construct permittee shall surrender NOx emission reduction credits for the following quantities of emissions 1st quarter 1 563 lb 2nd quarter 1 564 lb 3rd quarter - 1 564 lb and fourth quarter 1 564 lb Offsets shall be provided at the applicable offset ratio specified in Table 4 2 of Rule 2201 (as amended 4/21/11) [District Rule 2201]

5 Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions 1st quarter 1 023 lb 2nd quarter - 1 024 lb, 3rd quarter - 1,024 lb, and fourth quarter - 1 024 lb Offsets shall be provided at the applicable offset ratio specified in Table 4 2 of Rule 2201 (as amended 4/21/11) [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230 5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT This is NOT a PERMIT TO OPERATE Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans specifications and conditions of this Authority to Construct and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District Unless construction has commenced pursuant to Rule 2050 this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance The applicant is responsible for complying with all laws ordinances and regulations of all other governmental agencies which may pertain to the above equipment

Seyed Sadredin Executive Director / APCO

DAVID WARNER Director of Permit Services
C1121-171-0 Dec 5 2013 8 0PM TOMS Joint Inspection NOT Required

6 ERC Certificate Numbers C-681-2 and C-679-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct [District Rule 2201]

7 The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment [District Rule 2201]

8 The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters [District Rule 2201]

9 Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct [District Rule 2201]

10 No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment [District Rule 2201]

11 No air contaminant shall be released into the atmosphere which causes a public nuisance [District Rule 4102]

12 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]

13 Particulate matter emissions shall not exceed 0 1 grains/dscf in concentration [District Rule 4201]

14 A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained [District Rule 2201 and 40 CFR 60 48c (g)]

15 The unit shall only be fired on natural gas with a maximum sulfur content of 1 0 gr S/100 scf [District Rules 2201 and 4320]

16 If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value [District Rule 4320]

17 If the unit is not fired on 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 Rules 2201 and 4320]

18 If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source The sulfur content of the fuel shall be determined using the test methods referenced in this permit [District Rule 4320]

19 If the unit is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the unit shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246 [District Rule 2201]

20 Duration of start-up and shutdown shall not exceed 2 hours each per occurrence [District Rules 4305, 4306, and 4320]

21 Duration of refractory curing shall not exceed 30 hours per each occurrence [District Rules 4305, 4306, and 4320]

22 Emission rates during startup, shutdown and refractory curing shall not exceed particulate matter - 10 pounds per hour, or 0 1 grains/dscf calculated to 12% CO2, sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0 11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan, NO2 - 140 pounds per hour or 0 14 pounds per MMBtu [District Rules 4101, 4102, 4301, 4405, 4406, and 4801]

CONDITIONS CONTINUE ON NEXT PAGE

23 Except during startup, shutdown, or refractory curing, emissions rates from the unit shall not exceed any of the following limits 7 ppmv NOx @ 3% O2 or 0 0084 lb NOx/MMBtu, 0 005 lb-PM10/MMBtu, 25 ppmv CO @ 3% O2 or 0 0182 lb-CO/MMBtu, or 0 0055 lb-VOC/MMBtu [District Rules 2201, 4305, 4306, 4320]

24 A source test to demonstrate compliance with NOx and CO emission limits shall be performed within 60 days of initial startup of this unit [District Rules 2201 and 4320]

25 Source testing to measure NOx and CO 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 4305, 4306 and 4320]

26 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 Unless otherwise 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]

27 The results of each source test shall be submitted to the District within 60 days thereafter [District Rule 1081]

28 The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance [District Rules 4305, 4306 and 4320]

29 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]

30 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]

31 The following test methods shall be used NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, Stack gas moisture content - EPA Method 4, SOx - EPA Method 6C or 8 or ARB Method 100, fuel gas sulfur as H2S content - EPA Method 11 or 15, and fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 [District Rule 1081, 4305, 4306, 4320, and 4351]

32 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]

33 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]

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 Rules 4305, 4306 and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

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 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]

36 Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 [District Rules 4305, 4306, and 4320]

37 Permittee shall submit notification to the District of the date of construction, anticipated startup, and actual startup Notifications shall be postmarked no later than 30 days after construction and 15 days after actual startup The notifications shall include the design heat input and identification of fuels for this permit unit [40 CFR 60 48c (a)]

38 Permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator [District Rule 2201 and 40 CFR 60 48c (g)]

39 Permittee shall maintain records of duration of each start-up and shutdown, and refractory curing [District Rule 4320]

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 [District Rules 1070, 4305, 4306, 4320, and 40 CFR 60 48c (i)]

ATTACHMENT D

Detailed Summary List of Facility Permits

Detailed Facility Report

For Facility=1121 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

AERA ENERGY LLC
HEAVY OIL PRODUCTION
FRESNO COUNTY, CA

FAC # **C 1121**
STATUS: **A**
TELEPHONE: **6616655000**

TYPE: **TitleV**
TOXIC ID: **40224**

EXPIRE ON: **12/31/2016**
AREA: **5 /**
INSP. DATE: **06/18**

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
C-1121-9-13	62.5 MMBtu/hr	3020-02 H	1	1,128.00	1,128.00	A	SG C-1, 62.5 MMBTU/HR THERMOTICS NATURAL GAS-FIRED STEAM GENERATOR, WITH COEN QLN ULN BURNER WITH FLUE GAS RECIRCULATION
C-1121-10-13	62.5 MMBtu/hr	3020-02 H	1	1,128.00	1,128.00	A	SG C-2, 62.5 MMBTU/HR THERMOTICS STEAM GENERATOR, GAS FIRED, WITH COEN QLN-ULN BURNER WITH FLUE GAS RECIRCULATION
C-1121-12-7	62.5 MMBtu/hr	3020-02 H	1	1,128.00	1,128.00	A	DORMANT SG C-4, 62.5 MMBTU/HR THERMOTICS GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN MODEL 6131G LONOX BURNER
C-1121-13-12	62.5 MMBtu/hr	3020-02 H	1	1,128.00	1,128.00	A	62.5 MMBTU/HR NATURAL GAS-FIRED THERMOTICS STEAM GENERATOR WITH COEN QLN LONOX BURNER AND FLUE GAS RECIRCULATION (SG N-5)
C-1121-14-13	62.5 MMBtu/hr	3020-02 H	1	1,128.00	1,128.00	A	62.5 MMBTU/HR THERMOTICS STEAM GENERATOR (SG N-6) GAS FIRED, WITH COEN QLN-ULN BURNER WITH FLUE GAS RECIRCULATION
C-1121-15-13	62.5 MMBtu/hr	3020-02 H	1	1,128.00	1,128.00	A	62.5 MMBTU/HR THERMOTICS STEAM GENERATOR (SG N-7), GAS FIRED, WITH COEN QLN-ULN BURNER WITH FLUE GAS RECIRCULATION
C-1121-16-12	62.5 MMBtu/hr	3020-02 H	1	1,128.00	1,128.00	A	SG N-8, 62.5 MMBTU/HR THERMOTICS STEAM GENERATOR, GAS FIRED, WITH NORTH AMERICAN MODEL 6131G LONOX BURNER WITH FLUE GAS RECIRCULATION
C-1121-17-28	62.5 MMBtu/hr	3020-02 H	1	1,128.00	1,128.00	A	S-9, 62.5 MMBTU/HR THERMOTICS, NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH COEN QLN ULN BURNER AND FLUE GAS RECIRCULATION SERVED BY LO-COST H2S SCAVENGER SYSTEM AND SULFATREAT VESSELS SHARED WITH PERMIT UNITS C-1121-18, '-19 AND '-41
C-1121-18-28	62.5 MMBtu/hr	3020-02 H	1	1,128.00	1,128.00	A	S-10, 62.5 MMBTU/HR THERMOTICS, NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER, AND A FLUE GAS RECIRCULATION (FGR) SYSTEM SERVED BY LO-COST H2S SCAVENGER SYSTEM AND SULFATREAT VESSELS SHARED WITH PERMIT UNITS C-1121-17, '-19 AND '-41
C-1121-19-28	62.5 MMBtu/hr	3020-02 H	1	1,128.00	1,128.00	A	S-11, 62.5 MMBTU/HR THERMOTICS, NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER AND A FLUE GAS RECIRCULATION (FGR) SYSTEM SERVED BY LO-COST H2S SCAVENGER SYSTEM AND SULFATREAT VESSELS SHARED WITH PERMIT UNITS C-1121-17, '-18 AND '-41
C-1121-22-14	210,000 gallons	3020-05 E	1	270.00	270.00	A	4.0 MMBTU/HR ENGELMAN GENERAL HEATER WITH NORTH AMERICAN MODEL 5131 GAS BURNER (PEER-1-0) AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-303)

Detailed Facility Report

For Facility=1121 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
C-1121-23-14	93,870 gallons	3020-05 D	1	203.00	203.00	A	2,235 BBL HEATER TREATER VESSEL WITH PRESSURE RELIEF VENT CONNECTED TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-304) AND PERMIT EXEMPT BURNER (NATURAL GAS-FIRED, 5.0 MMBTU/HR OR LESS)
C-1121-24-9	6.0 MMBtu/hr	3020-02 G	1	893.00	893.00	A	6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #5131 GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-307)
C-1121-25-9	6 MMBtu/hr	3020-02 G	1	893.00	893.00	A	6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #5131 GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-308)
C-1121-26-9	6.0 MMBtu/hr	3020-02 G	1	893.00	893.00	A	6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #6121-25H GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-309)
C-1121-33-9	4,000 kW GTE Power Generation	3020-08A C	1	1,678.00	1,678.00	A	TG-1, 52.7 MMBTU/HR ALLISON GM 501-KB5 NATURAL GAS FIRED TURBINE WITH WATER INJECTION AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM DRIVING A 4 MW ELECTRICAL GENERATOR
C-1121-34-9	4,000 kW GTE Power Generation	3020-08A C	1	1,678.00	1,678.00	A	TG-1, 52.7 MMBTU/HR ALLISON GM 501-KB5 NATURAL GAS FIRED TURBINE WITH WATER INJECTION AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM DRIVING A 4 MW ELECTRICAL GENERATOR
C-1121-38-8	155 wells	3020-09 A	155	10.23	1,585.65	A	CVR-1: 155 STEAM-DRIVE WELLS SERVED BY 170 HP CASING VAPOR RECOVERY SYSTEM WITH HEAT EXCHANGER E-100, FIN FAN COOLER E-110, SEPARATOR V-100, CONDENSATE PUMPS P-100 AND P-101, AND GAS COMPRESSOR SKID WITH COMPRESSOR C-10, FIN FAN COOLER E-10, SEPARATORS V-10 AND V-11 AND CONDENSATE PUMP P-10.
C-1121-39-11	213 Steam Drive Wells	3020-09 A	213	10.23	2,178.99	A	CVR-2: 213 STEAM-DRIVE WELLS SERVED BY 140 HP CASING VAPOR RECOVERY SYSTEM WITH HEAT EXCHANGER E-200, FIN-FAN COOLER E-210, SEPARATOR V-200, CONDENSATE PUMPS P-200 & P-201, AND GAS COMPRESSOR SKID WITH COMPRESSOR C-20, FIN-FAN COOLER E-20, SEPARATORS V-20 & V-21, AND CONDENSATE PUMP P-20 AND 75 HP VAPOR COMPRESSOR SKID WITH OUTLET FIN-FAN COOLER, GAS LIQUID SEPARATORS, AND CONDENSATE PUMPS. RECOVERED VAPOR LINE CONNECTED TO RECOVERED VAPOR LINES OF PERMIT UNITS C-1121-116 & C-1121-114
C-1121-41-28	62.5 MMBtu/hr	3020-02 H	1	1,128.00	1,128.00	A	S-12, 62.5 MMBTU/HR THERMOTICS, NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR (S-12) WITH COEN QLN-ULN BURNER, FLUE GAS RECIRCULATION SERVED BY LO-COST H2S SCAVENGER SYSTEM AND SULFATREAT VESSELS SHARED WITH PERMIT UNITS C- 1121-17, '-18 AND '-19

Detailed Facility Report

For Facility=1121 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
C-1121-45-13	210,000 gallons	3020-05 E	1	270.00	270.00	A	105,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK WITH 60 HP SHARED TANK VAPOR CONTROL SYSTEM SERVING TANKS C-1121-46, -79, -82 THROUGH 85, -87 THROUGH -90; HEATER TREATERS C-1121-22 THROUGH -26; 2 PRESSURE VESSELS (V200 & V350); AND 6 FWKO VESSELS (V301, V302, V311, V312, V313, AND V336) BLANKETED WITH TEOR AND CVR WASTE GAS (T-317)
C-1121-46-4	210,000 gallons	3020-05 E	1	270.00	270.00	A	5,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK SERVED BY A SHARED VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (T-318)
C-1121-72-9	33,293 gallons	3020-05 C	1	149.00	149.00	A	33,293 GAL FWKO PRESSURE VESSEL USED TO SEPARATE PRODUCED OIL FROM WATER SERVED BY A PRESSURE RELIEF VALVE TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-301)
C-1121-73-9	33,293 gallons	3020-05 C	1	149.00	149.00	A	33,293 GAL FWKO PRESSURE VESSEL USED TO SEPARATE PRODUCED OIL FROM WATER SERVED BY A PRESSURE RELIEF VALVE TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-302)
C-1121-74-4	21,000 gallons	3020-05 C	1	149.00	149.00	A	#T-1, 500 BBL BAKER TANK USED TO STORE BRINE OR OIL AND WATER FROM OIL PRODUCTION
C-1121-77-3	126,000 gallons	3020-05 E	1	270.00	270.00	A	#T-103, 3,000 BBL (126,000 GAL) STOCK TANK (LUBE SIDE). DIAMETER - 29.7 FEET. COLOR - TAN/BEIGE
C-1121-78-3	126,000 gallons	3020-05 E	1	270.00	270.00	A	#T-104, 3000 BBL (126,000 GAL) STOCK TANK (REFINED SIDE). DIAMETER - 29.7 FEET. COLOR - TAN/BEIGE
C-1121-79-4	420,000 gallons	3020-05 E	1	270.00	270.00	A	10,000 BBL (420,000 GALLON) STOCK TANK WITH PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (ZONE 1, T-316)
C-1121-82-6	117,600 gallons	3020-05 E	1	270.00	270.00	A	2,800 BBL SKIM TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-320)
C-1121-83-6	117,600 gallons	3020-05 E	1	270.00	270.00	A	2,800 BBL SKIM TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-321)
C-1121-84-6	10,500 gallons	3020-05 B	1	103.00	103.00	A	250 BBL DRAIN TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-323)
C-1121-85-6	10,500 gallons	3020-05 B	1	103.00	103.00	A	250 BBL DRAIN TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-324)
C-1121-87-6	17,800 gallons	3020-05 B	1	103.00	103.00	A	400 BBL DISPOSAL TANK SERVED BY TANK VAPOR RECOVERY SYSTEM COMMON TO C-1121-45 (T-322)
C-1121-88-4	126,000 gallons	3020-05 E	1	270.00	270.00	A	3,000 BBL WATER CLARIFIER TANK SERVED BY TANK VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (T-400)
C-1121-89-4	210,000 gallons	3020-05 E	1	270.00	270.00	A	5,000 BBL FILTERED WATER TANK SERVED BY TANK VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (T-600)

Detailed Facility Report

For Facility=1121 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
C-1121-90-4	210,000 gallons	3020-05 E	1	270.00	270.00	A	5,000 BBL SOFT WATER TANK SERVED BY TANK VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (T-810)
C-1121-91-5	25,911 gallons	3020-05 C	1	149.00	149.00	A	25,912 GAL WATER CLARIFIER PRESSURE VESSEL SERVED BY A PRESSURE REGULATOR VENTED TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-200)
C-1121-93-2	20 wells	3020-09 B	20	10.23	204.60	A	20 UNCONTROLLED CYCLIC/STEAM DRIVE WELLS.
C-1121-100-8	210,000 gallons	3020-05 E	1	270.00	270.00	A	TRICO-SUPERIOR HEATER TREATER, HT-658, WITH AN UNCONTROLLED 5,000 BBL VESSEL AND PERMIT-EXEMPT BURNER (LESS THAN 5 MMBTU/HR, PEER-4-0)
C-1121-101-8	210,000 gallons	3020-05 E	1	270.00	270.00	A	HYDROTEK HEATER TREATER, HT-804, AND WITH AN UNCONTROLLED 5,000 BBL VESSEL AND PERMIT-EXEMPT BURNER (LESS THAN 5 MMBTU/HR, PEER-2-0)
C-1121-105-8	210,000 gallons	3020-05 E	1	270.00	270.00	A	TRICO-SUPERIOR HEATER TREATER, HT-659, WITH AN UNCONTROLLED 5,000 BBL VESSEL AND PERMIT-EXEMPT BURNER (LESS THAN 5 MMBTU/HR, PEER-3-0)
C-1121-106-8	210,000 gallons	3020-05 E	1	270.00	270.00	A	HYDROTEK HEATER TREATER, HT-808, WITH AN UNCONTROLLED 5,000 BBL VESSEL AND PERMIT-EXEMPT BURNER (LESS THAN 5 MMBTU/HR, PEER-5-0)
C-1121-114-9	184 wells	3020-09 A	184	10.23	1,882.32	A	MS-714, TEOR OPERATION SERVING 184 WELLS UTILIZING; A NORTH PENN ZEIR CVR SYSTEM WITH TWO CONDENSATE KO VESSELS, A CONDENSATE KO DRUM, TWO COMPRESSOR, TWO FIN FAN EXCHANGER AND CONNECTED TO CASING VAPOR RECOVERY SYSTEMS C-1121-39 & C-1121-116
C-1121-116-8	240 wells	3020-09 A	240	10.23	2,455.20	A	MS-717, TEOR OPERATION SERVING 240 WELLS WITH VAPOR CONTROL SYSTEM INCLUDING CONDENSATE KO DRUM AND CONDENSATE PUMP AND RECOVERED VAPOR LINE CONNECTED TO RECOVERED VAPOR LINES OF PERMIT UNITS C-1121-39 AND C-1121-114
C-1121-123-3	210,000 gallons	3020-05 E	1	270.00	270.00	A	210,000 GALLON (5000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14464) WITH DIAMETER 39', HEIGHT 24'
C-1121-124-3	210,000 gallons	3020-05 E	1	270.00	270.00	A	210,000 GALLON (5000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14465) WITH DIAMETER 39', HEIGHT 24'
C-1121-137-3	42,000 gallons	3020-05 C	1	149.00	149.00	A	42,000 GALLON (1000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14385) WITH DIAMETER 21', HEIGHT 16'
C-1121-138-3	42,000 gallons	3020-05 C	1	149.00	149.00	A	42,000 GALLON (1000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14386) WITH DIAMETER 21', HEIGHT 16'
C-1121-149-3	210,000 gallons	3020-05 E	1	270.00	270.00	A	210,000 GALLON (5000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14466) WITH DIAMETER 39', HEIGHT 24'
C-1121-150-3	210,000 gallons	3020-05 E	1	270.00	270.00	A	210,000 GALLON (5000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK (#T-14467) WITH DIAMETER 39', HEIGHT 24'

Detailed Facility Report

For Facility=1121 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
C-1121-168-11	7.16 MMBtu/hr	3020-02 G	1	893.00	893.00	A	7.16 MMBTU/HR FLARE TO BE USED TO INCINERATE NATURAL, WELL CASING, AND VAPOR RECOVERY GAS DURING MAINTENANCE OF FOUR 62.5 MMBTU/HR STEAM GENERATORS (C-1121-17, -18, -19, AND -41)
C-1121-170-0	85 MMBtu/hr	3020-02 H	1	1,128.00	1,128.00	A	85 MMBTU/HR NATURAL GAS-FIRED PCL CONSTRUCTION STEAM GENERATOR WITH A FIVES NORTH AMERICAN 4231-85-GLE LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM (PENN ZIER #14)
C-1121-171-0	85 MMBtu/hr	3020-02 H	1	1,128.00	1,128.00	A	85 MMBTU/HR NATURAL GAS-FIRED PCL CONSTRUCTION STEAM GENERATOR WITH A FIVES NORTH AMERICAN 4231-85-GLE LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM (PENN ZIER #13)

Number of Facilities Reported: 1