



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



MAY 11 2017

George Witter
Temblor Petroleum Company
5201 California Ave, Suite 340
Bakersfield, CA 93309

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: C-9148
Project Number: C-1170155

Dear Mr. Witter:

Enclosed for your review and comment is the District's analysis of Temblor Petroleum Company's application for an Authority to Construct for installation of an oil and gas production facility, in western Fresno county.

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 period, the District intends to issue the Authority to Construct. 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 regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 392-5617.

Sincerely,

Arnaud Marjollet
Director of Permit Services

AM:rue/ys

Enclosures

cc: Tung Le, CARB (w/ enclosure) via email

Sayed Sadredin

Executive Director/Air Pollution Control Officer

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San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Six tanks, glycol dehydration unit, three IC engines and emergency flare

Facility Name:	Temblor Petroleum Company.	Date:	April 21, 2017
Mailing Address:	5201 California Ave, Suite 340 Bakersfield, CA 93309	Engineer:	Richard Edgehill
		Lead Engineer:	Richard Karrs
Contact Person:	George Witter and Mike Kelly (Vector Environmental Company)		
Telephone:	(661) 395-5730 (GW) and (661) 323-1477 (MK)		
Application #:	C-9148-1-0 through '-11-0		
Project #:	C-1170155		
Complete:	February 6, 2017		

I. Proposal

Temblor Petroleum Company (Temblor) is requesting Authorities to Construct (ATCs) for a new oil production facility consisting of six vapor-controlled tanks (C-9148-1 through '-6), a glycol dehydration unit (C-9148-7), 3 IC engine/compressors (C-9148-8 through '-10), and an emergency flare (C-9148-11).

The project will require BACT and public notice. Offsets are not required.

Source C-9148 is not a major source and therefore Rules 2520 and 2530 are not applicable.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (2/18/16)
Rule 2410 Prevention of Significant Deterioration (Adopted 6/16/11)
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 4001 New Source Performance Standards (4/14/99)

Subpart Kb (Amended 4/14/99) - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) is not applicable. This subpart does not apply to vessels with a design capacity $\leq 1,589.874 \text{ m}^3$ ($\leq 420,000$ gallons) used for petroleum or condensate stored, processed, or treated prior to custody transfer. The capacity of these tanks is $\leq 420,000$ gallons, and they store crude oil prior to custody transfer; therefore, this subpart does not apply to the tanks in this project.

Subpart OOOO (Adopted 8/16/2012) - Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution.

Rule 4002 National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101 Visible Emissions (04/20/05)
Rule 4102 Nuisance (12/17/92)
Rule 4201 Particulate Matter Concentration (12/17/92)
Rule 4301 Fuel Burning Equipment (12/17/92)

Rule 4311 Flares (06/18/2009)
Rule 4408 Glycol Dehydration Systems (12/19/02) – **not applicable** – no glycol dehydration vent
Rule 4409 Components at Light Crude Oil Production Facilities, Natural Gas Facilities, and Natural Gas Processing Facilities (4/20/05) –N/A the API gravity < 30°
Rule 4623 Storage of Organic Liquids (05/19/05)
Rule 4702 Internal Combustion Engines (11/14/13)
Rule 4801 Sulfur Compounds (12/17/92)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The equipment will be located in Fresno County's Light Oil Stationary Source.

The Facility location is summarized below in Table-I.1, a map showing the property boundaries and the location of the production facility within the property is included in **Attachment I**.

Table I.1
Location of Hamish-McCormick Facility

Public Land Survey System	Section	¼ Section	Township	Range
	20	SE	17S	17E

The facility will not be located within 1,000 feet of the outer boundary of any K-12 school. Therefore, pursuant to CH&SC 42301.6, California Health and Safety Code (School Notice), public notification is not required.

IV. Process Description

Temblor Petroleum Company (Temblor) has drilled and completed several light oil wells in Fresno County, near the Five Points Oilfield. Temblor anticipates that the well tests will show that it is technologically and economically viable to produce the new wells. Consequently, Temblor plans to drill additional wells and construct a new crude oil production facility (tank setting) at their Hamish-McCormick Lease

Light crude and associated gas from lease wells will be routed to the Hamish-McCormick Facility. Upon arrival at the facility the production will proceed to three phase separator vessels (well test units) where the produced fluids will be phase separated into three process streams: associated gas (primarily methane), crude oil and produced water. The associated gas and the vapors recovered from crude oil production tanks will be compressed, dehydrated and delivered to sales pipeline. Crude oil will be cleaned (dehydrated) and temporarily stored in fixed roof tanks served by a shared vapor recovery system. The facility is not located near any existing crude oil pipelines. Consequently, the oil will be shipped via tanker trucks. The

crude oil will be loaded into the tanker trucks using transfer pumps attached to tank truck. The facility will not include any organic liquid loading racks, as that term is defined by the District rules. Produced water will be temporarily stored in fixed roof tanks equipped with a shared vapor recovery system and trucked offsite for reuse, reinjection or disposal at a facility permitted for such activity. A process flow diagram (PFD) for the facility is included in **Attachment II**.

Production is expected to range between 1,000 to 4,000 bbl/day of gross fluids (crude oil and produced water) and up to 4MM scfd (167 mscf/hr) of produced gas (associated gas). Laboratory analysis of the crude oil and produced gas are summarized below in the tables below. Copies of the analysis are included in **Attachment III**.

Note that the API gravity of the crude oil varies from 37 – 46 deg and the average molecular weight is 184. The wt% VOCs in the produced gas has been reported in a lab analysis to be as high as 30.5%. A laboratory analysis of the crude oil and produced gas are included in **Attachment III**.

A brief description of the various processes operated at the facility is provided below and detailed information on the equipment follows.

A. Production Intake

Production from light oil wells will flow or be pumped to the Facility intake header, which enables production to be routed to well test separator vessels. Depending on the number of producing wells and the volume of produced fluids, up to four well test separators may eventually be installed (V-1 through V-4). Each well test unit includes a small three-phase separator vessel, piping and instrumentation necessary for separating and measuring associated gas, crude oil and produced water. The well test separators, and associated fugitive emissions, are listed on the lowest numbered tank permit (C-9148-1). The well test units are designed to operate at about 125 psi and do not vent to the atmosphere. If an emergency event causes the pressure in the vessel to exceed the pressure relief valve (PRV) setting, then the gas discharged from the PRV will be routed to an emergency use only flare (C-9148-11).

B. Gas Processing System

1. Gas Compression System

The overhead gas from Vessels V-1 through V-4 will be combined with gas recovered from the vapor recovery system serving the fixed roof tanks at the facility. The combined gas streams will be routed to a compressor intake scrubber (Vessel V-6). Liquids that accumulate in the scrubber will be returned to the crude oil production tanks (C-9148-1 through '6). The overhead gas from the scrubber will be set to the intake of three gas compressors, powered by 265 hp spark-ignited, rich burn, natural gas fired IC engines (C-9148-8 though '-10) authorized for full time operation.

The compressor system will boost the pressure of the gas stream from about 100 Psi to around 1,000 Psi.

2. Gas Dehydration Unit

Gas discharged from the compressors will proceed to a skid-mounted glycol dehydration unit (or dehy). The wet gas is dehydrated by contacting the stream with a solution of triethylene glycol (TEG). As the wet gas flows through the absorption tower (vessel), the moisture in the gas stream is absorbed by the "lean" glycol solution. The dry gas exits the top of the contact tower and is routed to the facilities gas sales line.

The "rich" glycol solution containing absorbed water and some hydrocarbons exits the bottom of the contact vessel and is routed to a glycol regeneration system. The rich glycol solution is passed through a "flash" vessel where the temperature and pressure of the glycol stream is suddenly reduced, causing the liberation of the absorbed hydrocarbon gases.

The glycol is then routed to the reboiler where the stream is heated to about 250 °F and the absorbed water is released from the glycol solution. Note that the glycol reboiler is not permit exempt as it may be fired on gas containing more than 5% hydrocarbons heavier than butane. The water vapors exit the regeneration system through the reboiler "still vent". The lean glycol solution is filtered, heat exchanged and then returned to the top of the contact tower.

Uncontrolled glycol dehydration systems normally include two points at which process emissions can occur: the glycol flash vessel; and the reboiler still vent. Vapors from the glycol "flash vessel" are captured and are routed to the process system or to the field gas collection system. Vapors from the "still vent" will be condensed and returned to the crude oil processing system. Non-condensable vapors will be routed to the intake of the facilities vapor recovery system. Additional details on the gas dehydration unit are provided in the table below.

Process Information for TEG Dehydration Unit

Skid Mounted Glycol Dehydration Unit	
Specification	Value
Manufacturer	Provided upon start-up inspection.
Model No.	Custom design specifications.
Max. Reboiler Burner	375,000 Btu/Hr maximum heat input (HHV)
Contactor Gas Rate	10 MM (at 800 Psi, 75 °F).
Pumps (2)	Kimray 9015 pressure-to-volume (175 Gph).
Glycol Circulation Rate	Four (4) gallons lean glycol per pound water removed.
Reboiler Burner	Low NOx burner or other burner type certified to meet a NOx limit of 20 ppmv or less and a CO limit of 115 ppmv or less (both at 3% excess O2).
VOC Control System	Fully enclosed. Flash gas and still vent vapors are returned to the process system.

C. Crude Oil and Produced Water Treating System

1. Fixed Roof Tanks for Processing and Storage

Production from crude oil wells typically consists of uncombined free-water and crude oil emulsions. The free-water is easily removed from the crude oil using gravity separation. The emulsified oil requires treating (also called cleaning) to "break the emulsion" and facilitate separation into oil and water constituents. Depending on the characteristics of the production, treating can be accomplished using emulsion breakers (chemicals) which are injected into the crude oil stream in conjunction with "wash tanks" or "heater-treaters".

Wash tanks provide residence time required for emulsion breakers to act so that crude oil and water can separate and establish a well-defined oil-water interface. Heater treaters can accelerate phase separation of emulsions by reducing viscosity and encouraging coalescence of small oil and water drops.

As discussed previously, a three-phase well test units will be used to separate crude oil emulsion from free-water. The free-water from the separators will be routed to produced water storage tanks where it will be held until reinjected or disposed of at a facility permitted for such activity.

The produced water is expected to contain more than 35 mg/l of hydrocarbons. Consequently, the tanks will be permitted in the same manner as the other crude oil production, processing and storage tanks at the facility and will be served by a shared vapor recovery system (VRS).

The crude oil emulsion from the separators will be routed to fixed roof tanks, which depending on the manner in which the tanks are operated, will serve as wash-tanks or shipping tanks or both. The clean crude oil will be temporarily stored on site until custody transfer occurs. As noted earlier, the tanks will be served by a shared vapor recovery system.

Upon custody transfer the crude oil will be shipped via tanker truck. The crude oil and produced water will be transferred from the facility tanks using pumps mounted on the tanker truck.

2. Shared Vapor Control System (VCS)

Fixed tanks identified above will be served by the shared vapor recovery system. In addition, the non-condensable gas recovered from the glycol dehydration reboiler vent will also be tied to the VCS intake. The VCS includes the components required for interconnect piping and two 50 Hp or less natural gas-fired IC driven compressors (permit exempt). One compressor will be operated full time and the other compressor will be available for stand-by service. VCS equipment and emissions will be listed on C-9148-1.

D. Emergency Use Only Flare

An emergency use flare, flare header piping, and flare knock-out drum will be installed for disposal of produced gas in the event of an emergency.

During an emergency, gas from the facility equipment will be routed to flare header and then to the flare knock-out drum. The knock-out drum acts as a fluid seal system and also prevents carry-over of liquids to the flare stack. If drum liquids exceed specified levels the liquids are transferred to the crude oil production system. Overhead gas from the knock-out drum proceeds to the flare stack and burner.

The flare will include an air Coanda effect burner with a continuous pilot and thermocouple and an automatic ignition/reignition system. Process information on the flare is provided in the table below.

Process Information for Emergency Use Only Flare

Elevated – Unenclosed Flare	
¹ Specification	Value
Manufacturer	John Zink.
Model No.	Indair I-8 (Model I-8-RB).
Description	25' self-supported, unenclosed elevated flare.
Type	Coanda effect flare – air assisted tip
Maximum Flow Rate	4MM Scfd of produced gas, 1,300 Btu/Scf (HHV).
Pilot Type	Continuous with automatic ignition and thermocouple.
VOC Destruction Eff.	99% Guaranteed by manufacturer; Per EPA 98% destruction efficiency used in emission calculations.

A Process Flow Diagram (PFD) included in **Attachment II**.

V. Equipment Listing

C-9148-1-0: 2,000 BBL OR LESS CRUDE OIL PRODUCTION AND PROCESSING TANK, WITH VAPOR CONTROL SYSTEM (VCS) WITH TWO PERMIT EXEMPT IC ENGINE-DRIVEN COMPRESSORS SERVING TANKS C-9148-1 THROUGH '6 AND FACILITY INTAKE HEADER WELL TEST VESSELS V-1 THROUGH V-4

C-9148-2-0: 2,000 BBL OR LESS CRUDE OIL PRODUCTION AND PROCESSING TANK CONNECTED TO VCS C-9148-1

C-9148-3-0: 2,000 BBL OR LESS CRUDE OIL PRODUCTION AND PROCESSING TANK CONNECTED TO VCS C-9148-1

C-9148-4-0: 2,000 BBL OR LESS CRUDE OIL PRODUCTION AND PROCESSING TANK CONNECTED TO VCS C-9148-1

C-9148-5-0: 2,000 BBL OR LESS CRUDE OIL PRODUCTION AND PROCESSING TANK CONNECTED TO VCS C-9148-1

C-9148-6-0: 500 BBL OR LESS CRUDE OIL PRODUCTION AND PROCESSING TANK CONNECTED TO VCS C-9148-1

C-9148-7-0: GAS DEHYDRATION UNIT WITH FLASH VESSEL, STILL VAPORS RETURNED TO PROCESS SYSTEM, AND 375,000 BTU/HR NATURAL GAS-FIRED GLYCOL REBOILER (OR DISTRICT-APPROVED EQUIVALENT)

C-9148-8-0: 250 BHP NATURAL GAS-FIRED IC ENGINES SERVING ONE NATURAL GAS COMPRESSOR

C-9148-9-0: 250 BHP NATURAL GAS-FIRED IC ENGINES SERVING ONE NATURAL GAS COMPRESSOR

C-9148-10-0: 250 BHP NATURAL GAS-FIRED IC ENGINES SERVING ONE NATURAL GAS COMPRESSOR

C-9148-11-0: 4 MMSCF/DAY EMERGENCY USE JOHN ZINK INDAIR I-8 (MODEL I-8-RB) SMOKELESS COANDA FLARE WITH FLARE HEADER AND FLARE KNOCK OUT DRUM (OR DISTRICT-APPROVED EQUIVALENT)

VI. Emission Control Technology Evaluation

Tanks and Separators C-9148-1 through '-6

Tanks and separators C-9148-1 through '-6 will be served by a vapor control system with a control efficiency of at least 95% as required by Rule 4623. The vapor control system collects vapors from and routes the uncondensed vapors to a gas sales pipeline or flare C-9148-11. Both are considered to reduce inlet VOC emissions by at least 99% by weight.

C-9148-7 Glycol Reboiler

Emissions from the glycol reboiler include NO_x, CO, VOC, PM₁₀, and SO_x.

NO_x is the major pollutant of concern when burning natural gas. NO_x formation is either due to thermal fixation of atmospheric nitrogen in the combustion air (thermal NO_x) or due to conversion of chemically bound nitrogen in the fuel (fuel NO_x). Due to the low fuel nitrogen content of natural gas, nearly all NO_x emissions are thermal NO_x. Formation of thermal NO_x is affected by four furnace zone factors: (1) nitrogen concentration, (2) oxygen concentration, (3) peak temperature, and (4) time of exposure at peak temperature.

Ultra-Low-NO_x burners reduce NO_x formation by producing lower flame temperatures (and longer flames) than conventional burners. Conventional burners thoroughly mix all the fuel and air in a single stage just prior to combustion, whereas low-NO_x burners delay the mixing of fuel and air by introducing the fuel (or sometimes the air) in multiple stages. Generally, in the first combustion stage, the air-fuel mixture is fuel rich. In a fuel rich environment, all the oxygen will be consumed in reactions with the fuel, leaving no excess oxygen available to react with nitrogen to produce thermal NO_x. In the secondary and tertiary stages, the combustion zone is maintained in a fuel-lean environment. The excess air in these stages helps to reduce the flame temperature so that the reaction between the excess oxygen with nitrogen is minimized.

As the unit must be certified prior to installation, NO_x emissions are expected to comply with Rule 4308 requirement of 20 ppmv NO_x @ 3% O₂.

IC engine/compressors C-9148-8 through '-10

The IC engines are equipped with by three-way catalyst converters and air fuel ratio controllers for control of NO_x, CO, and VOCs.

Non-Selective Catalytic Reduction (NSCR) decreases NO_x, CO and VOC emissions by using a catalyst to promote the chemical reduction of NO_x into N₂ and O₂, and the chemical oxidation of VOC and CO into H₂O and CO₂.

The fuel/air ratio controller, (oxygen controller) is used in conjunction with the NSCR to maintain the amount of oxygen in the exhaust stream to optimize catalyst function.

Compressor fugitive emissions are assigned to the IC engine permits (C-9148-8 through '-10).

Emergency Use Flare C-9148-11

The flare will be Coanda is expected to operate smokeless. Other than for maintenance, testing, and required regulatory purposes, the flare will only be used for emergencies. An emergency is defined in Rule 4311 as "any situation or a condition arising from a sudden and reasonably unforeseeable and unpreventable event beyond the control of the operator. Examples include, but are not limited to, not preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not qualify as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency."

Fugitive Emissions

For all equipment except tanks, component leaks will be controlled by implementation of an I&M program consistent with the requirements of Rule 4409. The API gravity has been reported to be 45.6 deg (**Attachment III**).

VII. General Calculations

A. Assumptions

- Facility will operate 24 hours per day, 7 days per week, and 52 weeks per year
- The percentage of VOCs of the total hydrocarbons is 100%.
- The fugitive components associated with vapor control system, and separators will be listed on tank C-9148-1.
- Maximum flare heat input rating is 217 MMBtu/hr
- Flare VOC destruction efficiency: 98%

- Flared gas VOC emissions factor input: MW: 21.997, hhv: 1300 Btu/scf, % by wt VOC: 30.5 *
- The glycol dehydrator has no vent to atmosphere
- Annual operation of emergency flare '-11 for maintenance and testing: 200 hr/yr (District Rule 2201 requirement)
- Glycol reboiler '-7 is not permit exempt as it may combust gas containing more than 5% by wt hydrocarbons heavier than butane.

*Average Gas Analysis Hamish-McCormick" Appendix E Applicant EE, Table IV.2 "Produced Gas Composition (Hamish McCormick #3)"

C-9148-1 through '-11

Because emissions are calculated using EPA Average Leak Rate equations with a leak threshold of 2000 ppmv (or 10,000 ppmv for tanks C-9148-1 through '-6) leaks exceeding 2000 ppmv (or 10,000 ppmv) are a violation of the permit.

B. Emission Factors

C-9148-1 through '-11

Fugitive Emissions

- Fugitive VOC emissions have been quantified for Average Leak Rate (ALR) equations with a 2000 ppmv leak threshold (other equipment) in EPA, "Protocol for Estimating Leak Emissions" (EPA – 453/R-95-017, November 1995) Table 5-7, "Equation Relating Average Leak Rate to Fraction Leaking at Oil and Gas Production Operation Units." In calculating the DEL associated with fugitive emissions, the "LKFRAC" term in these equations, representing the number of allowable leaks, was assumed to be zero.
- The fugitive emissions for tanks C-9148-1 through '-6 are calculated using California Implementation Guidelines for Estimating Mass Emissions of fugitive Hydrocarbon Leaks at Petroleum Facilities, CAPCOA/CARB, February 1999 "revised screening" emissions factors.
- For the tanks included on C-9148-1 through '-6 the leak threshold is 10,000 ppmv.
- Spreadsheets detailing the calculation of the fugitive VOC emissions are included in **Attachment IV**.

C-9148-7 (Reboiler Burner)

Pollutant	EF		Source
NO _x	0.024 lb-NO _x /MMBtu	20 ppmvd NO _x (@ 3%O ₂)	Rule 4308
SO _x	0.00285 lb-SO _x /MMBtu		District Policy APR 1720
PM10	0.008 lb-PM10/MMBtu		Proposed
CO	0.082 lb-CO/MMBtu	115 ppmvd CO (@ 3%O ₂)	"
VOC	0.005 lb-VOC/MMBtu	13 ppmvd VOC (@ 3% O ₂)	"

C-9148-8 through -10 (250 hp IC engines)

Post-Project Emission Factors			
Pollutant	ppmv (@ 15% O ₂)	g/hp-hr*	Source
NO _x	5	0.07	BACT, proposed
SO _x		0.0093	Calculation**
PM10		0.064	Calculation***
CO	56	0.6	BACT, proposed
VOC		0.14	Revised proposal (email 3/14/17)"

*District calculator

$$** \frac{0.00285 \text{ lb}}{\text{MMBtu}} \times \frac{0.002542 \text{ MMBtu}}{\text{hp-hr}_{in}} \times \frac{1 \text{ hp}_{in}}{0.35 \text{ hp}_{out}} \times \frac{453.6 \text{ g}}{1 \text{ lb}} = 0.0093 \text{ g/hp-hr}$$

***PM₁₀ value includes both filterable (9.50x10⁻³ lb/MMBtu) and condensable (9.91x10⁻³ lb/MMBtu) emissions.

Emergency Use Flare C-9148-11

Pollutant	Emission Factor (lb/MMBtu)	Source
NO _x	0.068	AP-42/FYI-83
SO _x	0.00269	1.0 gr-S/100 scf 1062 Btu/scf
PM10	0.008	AP-42/FYI-83-BACT
CO	0.31	AP-42/FYI-83
VOC	0.33*	AP-42/FYI-83

*1.0 gr/ S100 scf x lb S/7000 gr x scf/1062 Btu x 10⁶ Btu/MMBtu x 2 SO₂/S = 0.00269 lb SO₂/MMBtu

*EF flare (lb/MMBtu)= 1.2 (200)(Wt % VOCs)(density gas)/hhv

density gas = 21.997 lb/lbmol/379.5 ft³/lbmol

$$= 0.058 \text{ lb/ft}^3$$

$$\text{EF flare (lb/MMBtu)} = 1.2 (200)(30.5)(0.058 \text{ lb/ft}^3)/1300 \\ = 0.33 \text{ lb/MMBtu}$$

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since these are new emissions unit, PE1 = 0 for all pollutants for each unit.

2. Post Project Potential to Emit (PE2)

Tanks, Separators, and VCS:

Permit Unit	VOC - Daily PE2 (lb./day)	VOC - Annual PE2 (lb./Year)
C-9148-1 (tank and VCS and inlet header with vessels V-1 through V-4)	0.35 + (0.3351 x 4) + 0.9576 (VCS) 2.6	967
C-9148-2 (tank)	0.35	128
C-9148-3 "	0.35	128
C-9148-4 "	0.35	128
C-9148-5 "	0.35	128
C-9148-6 "	0.29	106

C-9148-7 (Gas dehydration)

Fugitive VOC: 0.36 lb/day, 131 lb/yr

- PE2 = EF (lb/MMBtu) × Heat Input (MMBtu/hr) × Op. Sched. (hr/day or hr/year)

Pollutant	Daily PE2			
	EF2 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/day)	Daily PE2 (lb/day)
NO _x	0.024	0.375	24	0.2
SO _x	0.00285	0.375	24	0.0
PM ₁₀	0.0080	0.375	24	0.1
CO	0.082	0.375	24	0.7
VOC	0.0050	0.375	24	0.0

Pollutant	Annual PE2			
	EF2 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/year)	Annual PE2 (lb/year)
NO _x	0.024	0.375	8,760	79
SO _x	0.00285	0.375	8,760	9
PM ₁₀	0.0080	0.375	8,760	26
CO	0.082	0.375	8,760	269
VOC	0.0050	0.375	8,760	16

C-9148-7 (Gas dehydration)

PE2		
Pollutant	Daily Emissions (lb/day)	Annual Emissions (lb/year)
NO _x	0.2	79
SO _x	0	9
PM ₁₀	0.1	26
CO	0.7	269
VOC	0.0 + 0.36 = 0.5	16 + 131 = 147

C-9148-8 through '-10 IC engines, compressors (each)

Daily Pre-Project Emissions					
Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Daily Hours of Operation (hrs/day)	Conversion (g/lb)	PE1 Total (lb/day)
NO _x	0.07	265	24	453.6	1.0
SO _x	0.0093	265	24	453.6	0.1
PM ₁₀	0.064	265	24	453.6	0.9
CO	0.6	265	24	453.6	8.4
VOC	0.14	265	24	453.6	2.0

Annual Pre-Project Emissions					
Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Annual Hours of Operation (hrs/yr)	Conversion (g/lb)	PE1 Total (lb/yr)
NO _x	0.07	265	8760	453.6	358
SO _x	0.0093	265	8760	453.6	48
PM ₁₀	0.06	265	8760	453.6	307
CO	0.6	265	8760	453.6	3,071
VOC	0.14	265	8760	453.6	716

IC Engines C-9148-8 through '-10:

VOC Emissions

Post-Project Potential to Emit (PE2)		
Permit Unit	VOC - Daily PE2 (lb./day)	VOC - Annual PE2 (lb./Year)
C-9148-8	2.0 + 0.8509 (compressor fugitives) = 2.9	716 + 311 (fugitives) = 1,027
C-9148-9	2.0 + 0.4521 (compressor fugitives) = 2.5	716 + 165 (fugitives) = 881
C-9148-10	2.0 + 0.4521 (compressor fugitives) = 2.5	716 + 165 (fugitives) = 881

Flare (C-9148-11):

Flare knockout fugitives: 0.1972 lb VOC/day

Flare header fugitives: 0.3236 lb VOC/day

NO_x: (0.068 lb/MMBtu)(217 MMBtu/hr)(24 hr/day) = 354.1 lb/day
(354.1 lb/day)(200 hr/yr/24 hr/day) = 2,951 lb/yr

SO_x: (0.00285 lb/MMBtu)(217 MMBtu/hr)(24/hr/day) = 14.8
(14.8 lb/day)(200 hr/yr/24 hr/day) = 123 lb/yr

PM₁₀: (0.008 lb/MMBtu)(217 MMBtu/hr)(24 hr/day) = 41.7 lb/day
(41.7 lb/day)(200 hr/yr/24 hr/day) = 348 lb/yr

CO: (0.31 lb/MMBtu) (217 MMBtu/hr)(24 hr/day) = 1,614.5 lb/day
(1,614.5 lb/day)(200 hr/yr/(24 hr/day) = 13,454 lb/yr

VOC: (0.33 lb/MMBtu) (217 MMBtu/hr)(24 hr/day) = 1,718.6 lb/day
(1,718.6 lb/day)(200 hr/yr/(24 hr/day) = 14,322 lb/yr

Post-Project Flare Potential to Emit (PE2)		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
NO _x	354.1	2,951
SO _x	14.8	123
PM ₁₀	41.7	348
CO	1,614.5	13,454
VOC	1,718.6 + 0.1972* + 0.3236** = 1,719.1	14,322 + 190 = 14,512

*flare knockout and **flare header fugitives

Emissions profiles are included in **Attachment V**.

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site.

Since this is a new facility, there are no valid ATCs, PTOs, or ERCs at the Stationary Source; therefore, the SSPE1 is equal to zero.

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

SSPE2 (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
C-9148-1	0	0	0	0	967*
C-9148-2	0	0	0	0	128*
C-9148-3	0	0	0	0	128*
C-9148-4	0	0	0	0	128*
C-9148-5	0	0	0	0	128*
C-9148-6	0	0	0	0	106*
C-9148-7	79	9	26	269	16 + 131* = 147
C-9148-8	358	48	307	3,071	716 + 311* = 1,027
C-9148-9	358	48	307	3,071	716 + 165* = 881
C-9148-10	358	48	307	3,071	716 + 165* = 881
C-9148-11 (emergency flare)	2,951	123	348	13,454	14,322
Fugitive Emissions					2,357*
SSPE2 w/o flare**					4,521
SSPE2	1,153	153	947	9,482	18,843

*fugitives

** emergency flare not included in SSPE for offsets calculation

5. Major Source Determination

Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

Note that the major source calculation includes the emergency flare.

Rule 2201 Major Source Determination (lb/year)						
	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO	VOC
SSPE1	0	0	0	0	0	0
SSPE2	1,153 + 2,951 = 4,385	153 + 123 = 276	947 + 348 = 1,295	1,295	9,482 + 13,454 = 22,936	4,521 – 2,357 + 14,322 = 16,486
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No	No

Note: PM_{2.5} assumed to be equal to PM₁₀

As seen in the table above, the facility is not an existing Major Source and is not becoming a Major Source as a result of this project.

Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
Estimated Facility PE before Project Increase	0	0	0	0	0	0
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	N	N	N	N	N	N

As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to calculate the QNEC, and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

C-9148-1 through '-11:

Since these are new emissions units, BE = PE1 = 0 for all pollutants.

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this facility is not a major source for any of the pollutants addressed in this project, this project does not constitute an SB 288 major modification.

8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

Since this facility is not a Major Source for any pollutants, this project does not constitute a Federal Major Modification.

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- NO₂ (as a primary pollutant)
- SO₂ (as a primary pollutant)
- CO
- PM
- PM₁₀
- Sulfuric acid mist
- Hydrogen sulfide (H₂S)
- Total reduced sulfur (including H₂S)
- Reduced sulfur compounds

I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). The PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
Total PE from New and Modified Units	2.2	8.2	0.1	11.5	0.6	0.6
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	N	N	N	N	N	N

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. All project permits units are new and therefore QNEC = PE2/4.

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

- Any new emissions unit with a potential to emit exceeding two pounds per day,
- The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

As seen in Section VII.C.2 above, the applicant is proposing to an emergency flare with a PE greater than 2 lbs/day of all criteria pollutants. BACT is triggered for NO_x, SO_x, PM₁₀, and VOC only since the PEs are greater than 2 lb/day. However, BACT is not triggered for CO since the SSPE2 for CO is less than 200,000 lb/year, as demonstrated in Section VII.C.5 above.

All of the other emissions units in the project have daily emissions of NO_x, SO_x, PM₀, and VOCs less than 2 lb/day and therefore BACT is not triggered.

b. Relocation of emissions units – PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

c. Modification of emissions units – AIPE > 2 lb/day

As discussed in Section I above, there are no modified emissions units associated with this project. Therefore BACT is not triggered.

d. SB 288/Federal Major Modification

As discussed in Section VII.C.7 above, this project does not constitute an SB 288 Federal Major Modification. Therefore, BACT is not triggered for any pollutant.

As discussed in Section VII.C.8 above, this project does constitute Federal Major Modification for NO_x and VOC emissions. Therefore, BACT is triggered for NO_x and VOC for the flare.

2. BACT Guideline

BACT Guideline 1.4.2, [Waste gas Flare - Incinerating Produced Gas] was recently rescinded but is still considered applicable for the emergency flare.

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the attached Top-Down BACT Analysis (see **Attachment VI**), BACT has been satisfied with the following:

NO_x: Air Assist or Coanda Effect Burner
SO_x: Natural gas pilot fuel
PM₁₀: Air Assist or Coanda Effect Burner
VOC: Air Assist or Coanda Effect Burner

B. Offsets

1. Offset Applicability

Offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2	1,153	153	947	9,482	18,843
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	NO	No	No	No	No

2. Quantity of Offsets Required

As seen above, the SSPE2 is lesser than the offset thresholds for NO_x, SO_x, PM₁₀, CO, and VOC. Therefore, offset calculations will not be required for this project.

C. Public Notification

1. Applicability

Public noticing is required for:

- New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- Any project which results in the offset thresholds being surpassed, and/or
- Any project with an SSPE2 of greater than 20,000 lb/year for any pollutant.
- Any project which results in a Title V significant permit modification

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. As shown in Section VII.C.5 above, the SSPE2 is not greater than the Major Source threshold for any pollutant. Therefore, public noticing is not required for this project for new Major Source purposes.

b. PE > 100 lb/day

The PE2 for this new unit is compared to the daily PE Public Notice thresholds in the following table:

Emergency Flare C-9148-11

PE > 100 lb/day Public Notice Thresholds			
Pollutant	PE2 (lb/day)	Public Notice Threshold	Public Notice Triggered?
NO _x	354.1	100 lb/day	Yes
SO _x	14.8	100 lb/day	No
PM ₁₀	41.7	100 lb/day	No
CO	1,614.5	100 lb/day	Yes
VOC	1,719.1	100 lb/day	Yes

Therefore, public noticing for PE > 100 lb/day purposes is required.

c. Offset Threshold

The SSPE1 and SSPE2 are compared to the offset thresholds in the following table.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x	0	1,153	20,000 lb/year	No
SO _x	0	153	54,750 lb/year	No
PM ₁₀	0	947	29,200 lb/year	No
CO	0	9,482	200,000 lb/year	No
VOC	0	18,843	20,000 lb/year	No

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	1,153	0	1,153	20,000 lb/year	No
SO _x	153	0	153	20,000 lb/year	No
PM ₁₀	947	0	947	20,000 lb/year	No
CO	9,482	0	9,482	20,000 lb/year	No
VOC	18,843	0	18,843	20,000 lb/year	No

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

e. Title V Significant Permit Modification

Since this facility does not have a Title V operating permit, this change is not a Title V Significant Modification, and therefore public noticing is not required.

2. Public Notice Action

As discussed above, public noticing is required for this project. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATCs for this equipment.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

C-9148-1 (Tank and VCS)

A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv) or 10,000 ppmv (for tank only) , as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623] N

VOC fugitive emissions shall not exceed 1.36 lb/day from well test separators . [District Rule 2201] N

VOC fugitive emissions shall not exceed 0.96 lb/day from vapor control system compressors. [District Rule 2201] N

VOC fugitive emissions shall not exceed 0.35 lb/day from tank up to vapor control system trunk line. [District Rule 2201] N

C-9148-2 through -6 (Tanks)

A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623] N

VOC fugitive emissions shall not exceed 0.35 lb/day from tank up to vapor control system trunk line. [District Rule 2201] N

C-9148-7 (Gas dehydration)

Sulfur content of natural gas combusted in glycol reboiler shall not exceed 1 gr S/100 scf. [District Rule 2201] N

Emissions from the glycol reboiler, while firing PUC-quality natural gas as defined by Rule 4308, shall not exceed any of the following limits: 20 ppmvd NO_x @ 3% O₂ or 0.024 lb/MMBtu, and 115 ppmvd CO. [District Rules 2201 and 4308] N

A leak-free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 2,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A gas or liquid leak is a violation of this permit. [District Rule 2201] N

VOC fugitive emissions shall not exceed 0.36 lb/day. [District Rule 2201] N

C-9148-8 through -10 (IC Engines)

NO_x emission concentrations shall not exceed 5 ppm by volume at 15% O₂. [District Rule 2201, District Rule 4701, 5.1; and District Rule 4702, 5.1] N

VOC emissions concentrations shall not exceed 23 ppmv at 15% O₂. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1] N

CO emission concentrations shall not exceed 56 ppm by volume at 15% O₂. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1] N

Unit shall be fired only on natural gas with a sulfur content of less than or equal to 1.0 grains per 100 dry standard cubic feet of fuel gas. [District Rule 2201 and District Rule 4801] N

Emissions from the engine shall neither exceed SO_x (as SO₂) - 0.00285 lb/1,000 scf of fuel burned, nor PM₁₀ - 0.019 lb/1,000 scf of fuel burned. [District Rule 2201] N

Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] N

A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is

calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] N

VOC fugitive emissions shall not exceed 0.85 lb/day. [District Rule 2201] N

C-9148-11 (Flare)

A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] N

VOC fugitive emissions from flare knockout drum shall not exceed 0.2 lb/day. [District Rule 2201] N

VOC fugitive emissions from flare header drum shall not exceed 0.33 lb/day. [District Rule 2201] N

Flare shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rules 1070 and 2201] N

Emergency is defined as any situation or a condition arising from a sudden and reasonably unforeseeable and unpreventable event beyond the control of the operator. Examples include, but are not limited to, not preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not qualify as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency. [District Rules 2201 and 4311] N

Flare shall be operated only for testing and maintenance of the flare, required regulatory purposes, and during emergency situations. Operation of the flare for maintenance, testing, and required regulatory purposes shall not exceed 200 hours per calendar year. [District Rule 2201] N

Sulfur compound concentration of gas combusted shall not exceed 1.0 gr S/100 scf (16.9 ppmv H₂S). [District Rule 2201] N

Only natural gas with a sulfur content not exceeding 1.0 gr S/100scf shall be used as pilot fuel. [District Rule 2201] N

This flare shall be operated only during emergency situations. [District Rule 2201] N

Maximum amount of gas combusted shall not exceed 217 MMBtu/hr. [District Rule 2201] N

Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NO_x (as NO₂): 0.068 lb/MMBtu; PM₁₀: 0.008 lb/MMBtu; CO: 0.31 lb/MMBtu; or VOC: 0.33 lb/MMBtu. [District Rule 2201] N

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

2. Monitoring

The following monitoring is required to demonstrate compliance with Rule 2201:

C-9148-11 (flare)

The higher heating value of the flared gas shall be monitored at least quarterly. [District Rules 1070 and 2201] N

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following condition(s) are listed on the permit to operate:

Tanks C-9148-1 through -6

Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623] N

C-9148-7 (Glycol Dehydration)

If the glycol reboiler 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 2201] N

C-9148-12 (Flare)

Permittee shall keep accurate records of daily and annual quantity of gas combusted. [District Rule 2201] N

Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201] N

Permittee shall keep accurate records of daily and annual quantity of gas combusted by flare. [District Rule 2201] N

Permittee shall keep accurate records of date/time of flare use, reason for flare use, and corrective action taken. [District Rule 2201] N

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis. Refer to **Attachment VII** of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NO_x, CO, and SO_x. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NO_x, CO, or SO_x.

The proposed location is in a non-attainment area for the state's PM₁₀ as well as federal and state PM_{2.5} thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM₁₀ and PM_{2.5}.

Rule 2410 Prevention of Significant Deterioration

As shown in Section VII. C. 9. above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates the New Source Performance Standards from 40 CFR Part 60. 40 CFR Part 60, Subparts, K, Ka, Kb, and OOOO and could potentially apply to the storage tanks located at this facility.

40 CFR Part 60, Subparts, K, Ka, and Kb could potentially apply to the storage tanks located at this facility. However, pursuant to 40 CFR 60.110 (b), 60.110(a) (b), and 60.110(b) (b), these subparts do not apply to storage vessels less than 10,000 bbls, used for petroleum or

condensate, that is stored, processed, and/or treated at a drilling and production facility prior to custody transfer.

40 CFR Part 60, Subpart OOOO—Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (constructed, reconstructed, or modified after 8/23/11) applies to single storage vessel, located in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment. The subject tanks are subject to this subpart. However, Subpart OOOO has no standards for tanks with annual VOC emissions less than 6 tons per year. Therefore, the subject tanks are not an affected facility and subpart OOOO does not apply.

No subparts of 40 CFR Part 60 apply to produced gas-fired flares.

Therefore, the requirements of this subpart are not applicable to this project.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to the tank and flare operations.

Rule 4101 Visible Emissions

Rule 4101 states that 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.

As long as the tanks are properly maintained and operated, tank compliance with visible emissions limits is expected under normal operating conditions.

The flare is equipped with air assist and is expected to continue to operate without visible emissions dark as, or darker than, Ringelmann 1 or 20% opacity as stated in the following ATC condition:

- 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]

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Furthermore, they are remotely located in a rural area. Therefore, compliance with this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

An HRA is not required for a project with a total facility prioritization score of less than or equal to one. The HRA Summary (**Attachment VII**) is included below:

A. RMR SUMMARY

RMR Summary						
Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required?	Special Permit Requirements?
Unit 1-0 (Crude Oil Tank)	0.03	0.00	0.00	8.00E-09	No	No
Unit 2-0 (Crude Oil Tank)	0.00	0.00	0.00	1.28E-09	No	No
Unit 3-0 (Crude Oil Tank)	0.00	0.00	0.00	1.11E-09	No	No
Unit 4-0 (Crude Oil Tank)	0.00	0.00	0.00	1.22E-09	No	No
Unit 5-0 (Crude Oil Tank)	0.00	0.00	0.00	1.17E-09	No	No
Unit 6-0 (Crude Oil Tank)	0.00	0.00	0.00	8.58E-10	No	No
Unit 7-0 (Gas Dehydration)	0.00	0.00	0.00	1.21E-10	No	No
Unit 8-0 (Natural Gas ICE)	1.70	0.03	0.02	4.29E-07	No	Yes
Unit 9-0 (Natural Gas ICE)	1.70	0.03	0.02	4.32E-07	No	Yes
Unit 10-0 (Natural Gas ICE)	1.70	0.03	0.02	4.36E-07	No	Yes
Unit 11-0 (Flare)	1.51	0.04	0.00	1.58E-08	No	Yes
Project Totals	>1	0.09	0.06	1.33E-06		
Facility Totals	>1	0.09	0.06	1.33E-06		

Proposed Permit Requirements

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Units 8-0, 9-0, 10-0, & 11-0

1. 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.

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District's thresholds for triggering T-BACT requirements; therefore, compliance with the District's Risk Management Policy is expected.

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

Particulate emissions from process equipment are expected to be within Rule 4201 allowable concentrations. Compliance with Rule 4201 will be ensured by using natural gas as fuel and by limiting the total fuel sulfur to no more than 1 gr/100 scf of fuel.

- {14} *Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]*

Rule 4301 Fuel Burning Equipment

This rule specifies maximum emission rates in lb/hr for SO₂, NO₂, and combustion contaminants (defined as total PM in Rule 1020). This rule also limits combustion contaminants to ≤ 0.1 gr/scf. According to AP 42 (Table 1.4-2, footnote c), all PM emissions from natural gas and LPG combustion are less than 1 µm in diameter.

The following table compares the glycol reboiler's emissions with Rule 4301 limits.

Rule 4301 Limits			
Pollutant	Glycol Reboiler Emissions (lb/hr)	Rule 4301 Limits (lb/hr)	Compliant?
NO ₂	0.008	140	Yes
SO ₂	0.0	200	Yes
Total PM	0.004	200	Yes

Since none of the Rule 4301 limits are exceeded, compliance with Rule 4301 is expected.

Rule 4308 Boilers, Heaters and Steam Generators – Phase-3

This rule applies to any person who supplies, sells, offers for sale, installs, or solicits the installation of any boiler, steam generator, process heater or water heater with a rated heat input capacity greater than or equal to 75,000 British thermal units per hour and less than 2,000,000 British thermal units per hour. The glycol dehydration reboiler has a heat input rating of 0.375 MMBtu/hr so is subject to the rule.

Rule 4308 requires that process heaters meet Certified emissions levels and shall demonstrated compliance by an emission certification pursuant to Section 6.1 and complies with Table 2 NO_x limits and CO limits specified in Section 5.3.

6.1.1.1 The District's certification program as described in Section 6.2 of this rule.

6.1.1.2 The South Coast Air Quality Management District Certification List for Rule 1146.2.

6.1.1.3 Other emission certification programs approved by the EPA and APCO.

Applicant is proposing a 0.375 MMBtu/hr glycol reboiler which must comply with the following Rule 4308 limits for such equipment:

Table 2 Emission Limits (Effective on and after January 1, 2015)		
Type and Size of Unit, in MMBtu/hr	NO _x Limit (at 3% stack gas oxygen by volume on a dry basis)	
	PUC Gas	Non PUC Gas or Liquid
	lb/MMBtu of heat input (ppmv)	lb/MMBtu of heat input (ppmv)
Units greater than or equal to 0.075 but less than or equal to 0.4, except as specified below	0.024 (20)	0.093 (77)

Emission certification will ensure compliance and will be required by permit condition prior to installation.

Compliance is expected.

Rule 4311 Flares

This rule limits VOC and NO_x emissions from flares. The stationary source in the project has a potential to emit less than 10 tons/yr NO_x and 10 tons/yr VOCs. Therefore the facility is exempt from all requirements of the rule except the record-keeping requirements of Section 6.1.4. Section 6.1.4 states that "beginning January 1, 2007 facilities claiming an exemption pursuant to Section 4.3 shall record annual throughput, material usage, or other information necessary to demonstrate an exemption under that section." The following condition was added to the PTO to ensure compliance with this requirement:

Permittee shall keep accurate records of annual throughput, material usage, or other information necessary to demonstrate that facility emissions are less than 10 tons NO_x/yr and 10 tons VOC/yr for exemption from Rule 4311. [District Rule 4311] N

Therefore compliance is expected.

Rule 4409 Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities and Natural Gas Processing Plants

This rule requires that components containing or contacting VOC streams at light crude oil production facilities, natural gas production facilities, and natural gas processing facilities undergo LDAR and MRR..

Compliance with Rule 4409 will be ensured by conducting LDAR pursuant to the requirements contained in the rule. Records of LDAR will be maintained as required by Rule 4409. A Rule 4409 "Operator Management Plan" (OMP) will be submitted after the construction of the facility is complete.

Compliance is expected.

Rule 4623 Storage of Organic Liquids

This rule applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored.

The affected tanks are served by a vapor control system that has a control efficiency of at least 95%. This rule also requires the tank and tank vapor control system to be maintained in a leak-free condition. Leak-free is defined in the rule as no readings on a portable VOC detection device greater than 10,000 ppmv above background and no dripping of organic liquid at a rate of more than 3 drops per minute.

Tank(s) C-9148-1 through '-6 are equipped with a vapor control system with a VOC control efficiency of 95%. No throughput/TVP records are required to be kept for fixed-roof tanks equipped with vapor control. Applicant has elected to participate in the voluntary tank preventive inspection, maintenance, and tank cleaning program. Tank cleaning will be conducted according to the requirements of Table 6.

Compliance with the requirements of this rule is expected.

Per SSP 2210 Organic Liquid Storage Tanks – Cleaning Requirements the following tank cleaning conditions will be added:

- 14. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623] N*
- 15. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent*

or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623] N

16. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623] N
Per SSP 2215 Organic Liquid Storage Tanks – Voluntary Inspection and Maintenance Program the following conditions are to be placed on the tank's permit to reflect the requirements of the voluntary tank I&M program:

- Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3]
- Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3]
- Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3]
- Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3]
- Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes

specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623, Table 3]

- *If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3]*
- *Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3]*

Rule 4702 Internal Combustion Engines Phase-2

The purpose of this Rule is to limit NO_x, CO, and VOC emissions from internal combustion engines rates 25 bhp or greater.

The spark-ignited internal combustion engine is rich-burn and greater than 25 bhp. Therefore, the engine is subject to the requirements of this rule.

Section 5.1 applies to non-agricultural engines rated between 25 and 50 bhp. The engines are rated greater than 50 bhp. Therefore, this section does not apply.

Section 5.2.1 states the operator of a spark-ignited IC engine rated greater than 50 bhp that is used exclusively in non-agricultural operations (AO) shall not operate it in such a manner that results in emissions exceeding the limits in Table 1 for the appropriate engine type until such time that the engine has demonstrated compliance with Table 2 emission limits pursuant to the compliance deadlines in Section 7.5. In lieu of complying with Table 1 emission limits, the operator of a spark-ignited engine shall comply with the applicable emissions limits pursuant to Section 8.0.

The engine will comply with the emission limits specified in Table 2 (discussed below). Since the emissions limits in Table 2 are equal to or more stringent than the emission limits specified in Table 1, compliance with Table 2 emission limits will show compliance with Table 1 emission limits.

Section 5.2.2 states on and after the compliance schedule specified in Section 7.5, the operator of a spark-ignited engine > 50 bhp that is used in non-AO shall comply with all of the applicable requirements of the rule and one of the following, on an engine-by-engine basis:

5.2.2.1 On and after the compliance schedule specified in Section 7.5, the operator of a spark-ignited engine that is used exclusively in non-AO shall comply with the following requirements on an engine-by-engine basis:

- 5.2.2.1.1 NO_x, CO, and VOC emission limits pursuant to Table 2;
- 5.2.2.1.2 SO_x control requirements of Section 5.7, pursuant to the deadlines specified in Section 7.5; and
- 5.2.2.1.3 Monitoring requirements of Section 5.10, pursuant to the deadlines specified in Section 7.5.

5.2.2.2, 5.2.2.3 Emissions fee and alternative emission control plan requirements pursuant to Section 8.0 – not applicable.

Per the compliance schedules in Section 7.5, the earliest compliance date for an engine subject to Table 2 emission limits is January 1, 2014. However, the engines already meet the requirements listed in Section 5.2.2.1. Therefore, compliance with Section 5.2.2 and Table 2 emission limits will be shown.

Table 2: Rule 4702 Emission Limits			
Engine Type	NO _x Emission Limit (ppmv @ 15% O ₂ , dry)	CO Emission Limit (ppmv @ 15% O ₂ , dry)	VOC Emission Limit (ppmv @ 15% O ₂ , dry)
Rich-Burn Engine, not listed above	11	2000	250

The proposed emissions are 5 ppmv @3% NO_x, 56 ppmv @ 3% CO, and 25 ppmv @ 3% VOCs. Therefore compliance with Table 2 is expected.

Sections 5.2.3, 5.2.4, 5.2.5, and 5.3 apply to spark-ignited AO and CI engines and engines equipped with CEMs. Therefore these sections do not apply.

Sections 5.4 and 5.5 pertain to engines using a percent emission reduction to comply with the NO_x emission limits specified in Section 5.2. The ATCs include emissions limits in lb/hr and ppmv @ 15% O₂ and therefore percent emission reduction is not being used. These sections of the rule are not applicable.

Section 5.6 applies to operators who elect to pay an annual fee in lieu of complying with the NO_x emission limit requirements of Section 5.2.2.1.1. The engine will comply with the NO_x emission limit requirement of Section 5.2.2.1.1. Therefore, this section does not apply.

Section 5.7 states that on and after the compliance schedule specified in Section 7.5, operators of non-AO spark-ignited engines and non-AO compression-ignited engines shall comply with one of the following requirements:

- 5.7.1 Operate the engine exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases; or
- 5.7.2 Limit gaseous fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet; or
- 5.7.3 Use California Reformulated Gasoline for all gasoline-fired spark-ignited engines; or
- 5.7.4 Use California Reformulated Diesel for all compression-ignited engines; or
- 5.7.5 Operate the engine on liquid fuel that contains no more than 15 ppm sulfur, as determined by the test method specified in Section 6.4.6; or
- 5.7.6 Install and properly operate an emission control system that reduces SO₂ emissions by at least 95% by weight as determined by the test method specified in Section 6.4.6.

The IC engine will combust gas containing no more than 1 gr S/100scf and therefore meets the requirement of Section 5.7.2, 5 gr S/100 scf.

Alternate for NOx and CO monitoring will be revised from quarterly to monthly to satisfy both the Section 5.8.7 (I&M Program) and Section 5.8.9 (quarterly NOx alternate monitoring) requirements of Rule 4702. The deleted and new condition are as follows:

Permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702] N

Current PTO conditions meet the compliance demonstration, testing and recordkeeping requirements of the rule.

Continued compliance is expected.

Rule 4801 Sulfur Compounds

This rule limits the emissions of sulfur compounds. The rule applies to any discharge to the atmosphere of sulfur compounds, which would exist as a liquid or a gas at standard conditions. The rule prohibits the discharge to the atmosphere of sulfur compounds in concentration greater than 2,000 ppmv as sulfur dioxide (SO2), on a dry basis averaged over 15 consecutive minutes.

Emissions of sulfur compounds from the glycol reboiler and flare will comply with Rule 4801 requirements. Compliance will be ensured since combusted gas will not contain more than 1 gr S/100 Scf of fuel.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

DISTRICT RESPONSIBLE AGENCY – MITIGATED NEGATIVE DECLARATION

The County of Fresno (County) is the public agency having principal responsibility for approving the project. As such, the County served as the Lead Agency (CCR §15367). In approving the project, the Lead Agency prepared and adopted a Mitigated Negative Declaration. The Lead agency filed a Notice of Determination, stating that the environmental document was adopted pursuant to the provisions of CEQA and concluding that the project would not have a significant effect on the environment.

The District is a Responsible Agency for the project because of its discretionary approval

power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CCR §15381). As a Responsible Agency the District complies with CEQA by considering the environmental document prepared by the Lead Agency, and by reaching its own conclusion on whether and how to approve the project (CCR §15096).

The District has considered the Lead Agency's environmental document. Furthermore, the District has conducted an engineering evaluation of the project, this document, which demonstrates that Stationary Source emissions from the project would be below the District's thresholds of significance for criteria pollutants. Thus, the District finds that through a combination of project design elements, compliance with applicable District rules and regulations, and compliance with District air permit conditions, project specific stationary source emissions will have a less than significant impact on air quality. The District does not have authority over any of the other project impacts and has, therefore, determined that no additional findings are required (CEQA Guidelines §15096(h)).

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit is based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

The criteria pollutant emissions and toxic air contaminant emissions associated with the proposed project are not significant, and there is minimal potential for public concern for this particular type of facility/operation. Therefore, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Issue ATCs C-9148-1-0 through '-11-0 subject to the permit conditions on the attached draft ATC in **Attachment VIII**.

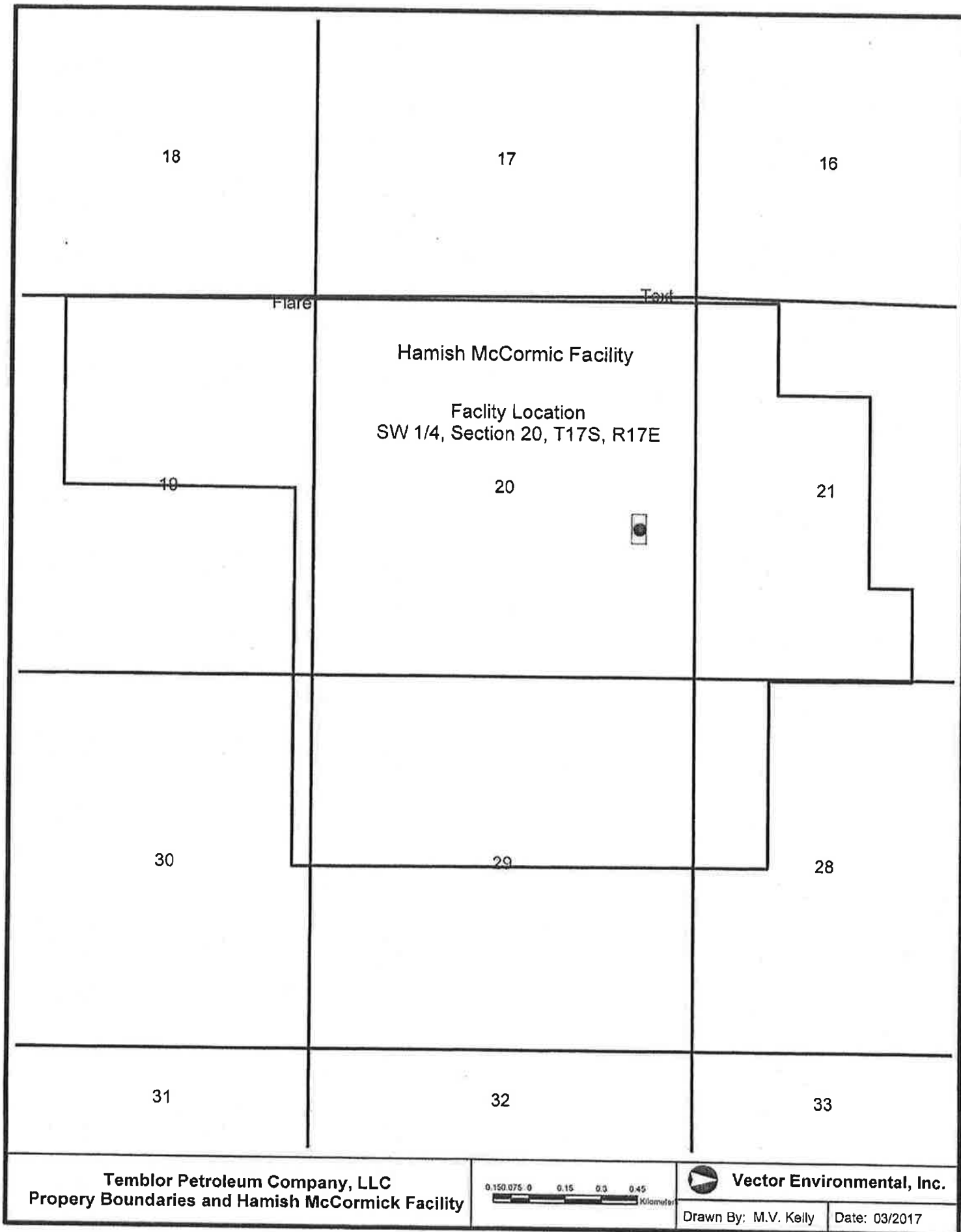
X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
C-9148-1	3020-05S D	84,000 gallons	\$ 83.00
C-9148-2	3020-05S D	84,000 gallons	\$ 83.00
C-9148-3	3020-05S D	84,000 gallons	\$ 83.00
C-9148-4	3020-05S D	84,000 gallons	\$ 83.00
C-9148-5	3020-05S D	84,000 gallons	\$ 83.00
C-9148-6	3020-05S C	21,000 gallons	\$ 70.00
C-9148-7	3020-02B	0.375 MMBtu/hr	\$ 129.00
C-9148-8	3020-10C	265 hp	\$ 264.00
C-9148-9	3020-10C	265 hp	\$ 264.00
C-9148-10	3020-10C	265 hp	\$ 264.00
C-9148-11	3020-02H	217 MMBtu/hr	\$1128.00

Attachments

- I: Location Map
- II: Process Flow Diagram
- III: Chemical Analyses
- IV: Fugitive Emissions
- V: Emissions Profiles
- VI: BACT Analysis
- VII: AAQA/HRA
- VIII: Draft ATCs

ATTACHMENT I
Location Map



ATTACHMENT II Process Flow Diagram

ATTACHMENT III Chemical Analyses



ZALCO LABORATORIES, INC.
Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

(661) 395-0539
FAX (661) 395-3069

Tembler Petroleum
P O Box 2105
Bakersfield, CA 93303

Project: Master
Project #:
Attention: Saeed Iranl

Work Order No.: 1610063
Reported: 10/17/2016
Received: 10/10/2016 09:00

Lab Sample ID: 1610063-01
Client Sample ID: Hamish McCormick 3

Collected By: Jeremiah Johnson
Date Collected: 10/7/2016 2:15:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Carbon Number, Molecular Weight								
Molecular Wt., Average	184				UOP 375/85	10/13/16	10/13/16	JAH
Carbon Number	13.0				UOP 375/85	10/13/16	10/13/16	JAH
Distillation								
IBP	97		°F		ASTM D 86	10/13/16	10/13/16	JAH
5%	132		°F		ASTM D 86	10/13/16	10/13/16	JAH
10%	148		°F		ASTM D 86	10/13/16	10/13/16	JAH
20%	162		°F		ASTM D 86	10/13/16	10/13/16	JAH
30%	238		°F		ASTM D 86	10/13/16	10/13/16	JAH
40%	275		°F		ASTM D 86	10/13/16	10/13/16	JAH
50%	321		°F		ASTM D 86	10/13/16	10/13/16	JAH
60%	425		°F		ASTM D 86	10/13/16	10/13/16	JAH
70%	550		°F		ASTM D 86	10/13/16	10/13/16	JAH
80%	648		°F		ASTM D 86	10/13/16	10/13/16	JAH
Final Boiling Point	686		°F		ASTM D 86	10/13/16	10/13/16	JAH
Final Volume	85		Vol. %		ASTM D 86	10/13/16	10/13/16	JAH
Residue	5		Vol. %		ASTM D 86	10/13/16	10/13/16	JAH
Total Recovery	90		Vol. %		ASTM D 86	10/13/16	10/13/16	JAH
Loss	10		Vol. %		ASTM D 86	10/13/16	10/13/16	JAH
Petroleum Chemistry								
API Gravity @60,	45.6		°API		ASTM D 4052	10/13/16	10/13/16	JAH
Densitometer								
Specific Gravity @ 60/60 °F	0.799				ASTM D 4052	10/13/16	10/13/16	JAH

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.

**ZALCO LABORATORIES, INC.**

Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308(661) 395-0539
FAX (661) 395-3069Temblor Petroleum
P O Box 2106
Bakersfield, CA 93303Project: Master
Project #:
Attention: Saeed IranlWork Order No.: 1609111
Reported: 09/16/2016
Received: 09/14/2016 13:00

Lab Sample ID: 1609111-02

Collected By:

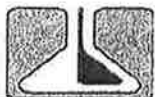
Client Sample ID: Gas

Date Collected: 9/14/2016 9:00:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Gas & Air Testing								
Sulfur	<0.060	0.060	gr/100 scf		ASTM D3246-11	9/14/16	9/14/16	RAM
Total Sulfur/Hydrogen Sulfide by ASTM D3246								
Total Sulfur	<1.00	1.00	ppmv		ASTM D 3246/M	9/14/16	9/14/16	RAM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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**ZALCO LABORATORIES, INC.**

4309 Armour Avenue, Bakersfield, CA 93308 (561) 395-0539 FAX (561) 395-3069 www.zalcolabs.com
 2186 Eastman Avenue, Suite 103, Ventura, CA 93003 (805) 477-0114 Fax (805) 477-0125

Tembler Petroleum
 P O Box 2105
 Bakersfield

CA 93303

Attention:

Saeed Irani

Sample Description:

Harnish McCormick 3

Sampled: 10/7/2016 @ 2:35:00 PM by Jeremiah Johnson

Laboratory No:

1610063-02

Date Received:

10/10/16

Date Analyzed:

10/10/16

Date Completed:

10/17/16 10:17 AM

Chromatographic Analysis: ASTM D-1945-03, ASTM D-3246-11

Constituent:	Result	Units
Sulfur	<0.06	grs S/100 SCF
Total Sulfur	<1.0	ppmv

Chromatographic Analysis: ASTM D-1945-03, ASTM D-3588-98, GPA 2145-09, ASTM D-3246-11

Constituent:	Mole %	Weight %	GPM	GPM Fractions	CHONS%
Oxygen	0.082	0.105	(Gallons per		Carbon, C
Nitrogen	2.265	2.554	1000.000		76.57
Hydrogen	0.080	0.006	cubic feet)		Hydrogen, H
Carbon Dioxide	0.000	0.000			20.77
Carbon Monoxide	0.000	0.000			
Hydrogen Sulfide	0.000	0.000			Oxygen, O
Methane	82.176	53.060			0.11
Ethane	1.928	2.333			
Propane	0.398	0.706	0.109	(C3....C3) = 0.109	Nitrogen, N
IsoButane	0.438	1.025	0.143		2.55
n-Butane	1.245	2.914	0.392	(C3....C4) = 0.645	
IsoPentane	2.054	5.964	0.750		Sulfur, S
n-Pentane	1.848	5.368	0.667	(C3....C5) = 2.062	0.00
Hexanes +	7.486	25.966	3.219	(C3....C6+) = 5.281	
Totals:	100.00	100.00	5.281	8.097	100.00

Flammable Gases:

97.574

Gas Properties calculated @ STP: degrees F.

60

Measurement Base Pressure @ STP: psia

14.696

H/C Ratio: 0.27

Gas State	Dry Btu / Cu. Ft	Btu / lb	Wet Btu / Cu. Ft
Gross, Ideal Gas	1441.57	22017.38	1416.49
Net, Ideal Gas	1312.71	20049.42	1289.87
Gross, Real Gas	1449.58		1424.36
Net, Real Gas	1320.01		1297.04

Relative Gas Density; [Air=1] Ideal:

0.8579

"F" Factor, DSCF/MMBtu @ 60F

8638

9485.5

Specific Gravity, [Air=1] Real gas:

0.8383

"F" Factor, DSCF/MMBtu @ 68F

8769

9630.0

Real Gas Density, Lb/Cu.Ft.:

0.0858

"F" Factor, DSCF/MMBtu @ 70F

8803

9666.6

Specific Volume, Cu.Ft./Lb:

15.1888

"FC" Factor, DSCF CO2/MMBtu @ 60F

1099.6

1207.5

Relative Liquid Density @ 60F/60F:

0.3968

"FC" Factor, DSCF CO2/MMBtu @ 68F

1116.3

1225.9

Compressibility, 'z':

0.9945

Fuel kg per kg-mole Molecular wt avg

24.844

ATTACHMENT IV
Fugitive Emissions

Hamish-McCormick
Fugitive Emission from Facility Equipment (Daily)

Emission Unit	Approximate Size or Capacity	TOG Lb/Day	VOC Lb/Day	¹ CO ₂ Kg/Day	Methane Kg/Day	CO ₂ e Kg/Day
Well Test Vessel V-1	<= 100 Bbl	0.3351	0.3351	0.0015	0.1292	2.7151
Well Test Vessel V-2	< = 100 Bbl	0.3351	0.3351	0.0015	0.1292	2.7151
Well Test Vessel V-3	< = 100 Bbl	0.3351	0.3351	0.0015	0.1292	2.7151
Well Test Vessel V-4	< = 100 Bbl	0.3351	0.3351	0.0015	0.1292	2.7151
Production Tank T-1 + Pumps ²	< =2,000 Bbl	0.3510	0.3510	0.0016	0.1353	2.8434
Production Tank T-2 + Pumps ²	< =2,000 Bbl	0.3510	0.3510	0.0016	0.1353	2.8434
Production Tank T-3 + Pumps ²	< =2,000 Bbl	0.3510	0.3510	0.0016	0.1353	2.8434
Production Tank T-4 + Pumps ²	< =2,000 Bbl	0.3510	0.3510	0.0016	0.1353	2.8434
Production Tank T-5 + Pumps ²	< =2,000 Bbl	0.3510	0.3510	0.0016	0.1353	2.8434
Drain Tank T-6 + Pumps ²	< =500 Bbl	0.2920	0.2920	0.0013	0.1126	2.3652
VRS Piping + VRS Compressor K-1A	<= 50 Bhp	0.4788	0.4788	0.0022	0.1846	3.8791
VRS Piping + VRS Compressor K-1B	<= 50 Bhp	0.4788	0.4788	0.0022	0.1846	3.8791
Gas Compressor Scrubber V-6	< = 10 Bbl	0.2615	0.2615	0.0012	0.1008	2.1182
Gas Compressor K-2A	<= 250 Bhp	0.4521	0.4521	0.0021	0.1743	3.6626
Gas Compressor K-2B	<= 250 Bhp	0.4521	0.4521	0.0021	0.1743	3.6626
Gas Compressor K-2C	<= 250 Bhp	0.4521	0.4521	0.0021	0.1743	3.6626
Heat Exchanger E-1 (Hp < = 50 Hp)	< = 5 MMBtu/Hr	0.1374	0.1374	0.0006	0.0530	1.1129
Glycol Dehydration Unit M-1	<= 2 MMBtu/Hr	0.3623	0.3623	0.0016	0.1397	2.9349
Flare Knock-Out Vessel V-5	< = 50 Bbl	0.1972	0.1972	0.0009	0.0760	1.5977
Flare Header and Flare M-2	≈ 170 Mcf/Hr	0.3236	0.3236	0.0015	0.1248	2.6217
Total Fugitive Emissions		6.983	6.983	0.032	2.692	56.574

Notes:

1. Fugitive CO₂ emissions were estimated using 0.01 Lb of CO₂ per Lb of TOG. Refer to gas analysis for additional information.
2. Each Tank will be served by two 5 Hp (or less) electric pumps used for transferring fluid among tanks.

Hamish-McCormick
Fugitive Emission from Facility Equipment (Annual Basis)

Emission Unit	Approximate Size or Capacity	TOG Lb/Year	VOC Lb/Year	¹ CO ₂ Kg/Year	Methane Kg/Year	CO ₂ e Kg/Year
Well Test Vessel V-1	<= 100 Bbl	122.327	122.327	0.555	47.164	991.00
Well Test Vessel V-2	< = 100 Bbl	122.327	122.327	0.555	47.164	991.00
Well Test Vessel V-3	< = 100 Bbl	122.327	122.327	0.555	47.164	991.00
Well Test Vessel V-4	< = 100 Bbl	122.327	122.327	0.555	47.164	991.00
Production Tank T-1 + Pumps ²	< =2,000 Bbl	128.109	128.109	0.581	49.393	1037.84
Production Tank T-2 + Pumps ²	< =2,000 Bbl	128.109	128.109	0.581	49.393	1037.84
Production Tank T-3 + Pumps ²	< =2,000 Bbl	128.109	128.109	0.581	49.393	1037.84
Production Tank T-4 + Pumps ²	< =2,000 Bbl	128.109	128.109	0.581	49.393	1037.84
Production Tank T-5 + Pumps ²	< =2,000 Bbl	128.109	128.109	0.581	49.393	1037.84
Drain Tank T-6 + Pumps ²	< =500 Bbl	106.563	106.563	0.483	41.086	863.29
VRS Piping + VRS Compressor K-1A	<= 50 Bhp	174.770	174.770	0.793	67.384	1415.85
VRS Piping + VRS Compressor K-1B	<= 50 Bhp	174.770	174.770	0.793	67.384	1415.85
Gas Compressor Scrubber V-6	< = 10 Bbl	95.435	95.435	0.433	36.796	773.14
Gas Compressor K-2A	<= 250 Bhp	165.018	165.018	0.749	63.624	1336.85
Gas Compressor K-2B	<= 250 Bhp	165.018	165.018	0.749	63.624	1336.85
Gas Compressor K-2C	<= 250 Bhp	165.018	165.018	0.749	63.624	1336.85
Heat Exchanger E-1 (Hp <= 50 Hp)	< = 5 MMBtu/Hr	50.142	50.142	0.227	19.333	406.21
Glycol Dehydration Unit M-1	<= 2 MMBtu/Hr	132.233	132.233	0.600	50.983	1071.25
Flare Knock-Out Vessel V-5	< = 50 Bbl	71.985	71.985	0.327	27.754	583.17
Flare Header and Flare M-2	≈ 170 Mcf/Hr	118.122	118.122	0.536	45.543	958.93
Total Fugitive Emissions		2,548.926	2,548.926	11.562	982.758	20,649.471

Notes:

1. Fugitive CO₂ emissions were estimated using 0.01 Lb of CO₂ per Lb of TOG. Refer to gas analysis for additional information.
2. Each Tank will be served by two 5 Hp (or less) electric pumps used for transferring fluid among tanks.

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Total Fugitive Emissions From Hamish-McCormick Facility								
Type of Component	Component Service	Component Counts	Ave. Leak Threshold (ppmv)	Ave. Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	824,000				0.682	0.682	0.580
	Light Crude Oil	902,000				0.759	0.759	0.645
	Heavy Crude Oil	36,000				0.015	0.015	0.013
Pump Seals	Gas/Light Liquid	21,000				0.291	0.291	0.248
	Light Crude Oil	40,000				0.736	0.736	0.625
	Heavy Crude Oil	0,000				0.000	0.000	0.000
Others	Gas/Light Liquid	100,000				0.321	0.321	0.273
	Light Crude Oil	154,000				0.826	0.826	0.702
	Heavy Crude Oil	0,000				0.000	0.000	0.000
Connectors	Gas/Light Liquid	2,436,000				1.145	1.145	0.973
	Light Crude Oil	3,852,000				1.913	1.913	1.626
	Heavy Crude Oil	36,000				0.000	0.000	0.000
Flanges	Gas/Light Liquid	1,215,000				0.184	0.184	0.156
	Light Crude Oil	1,161,000				0.112	0.112	0.095
	Heavy Crude Oil	36,000				0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0,000				0.000	0.000	0.000
	Light Crude Oil	0,000				0.000	0.000	0.000
	Heavy Crude Oil	0,000				0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components						6.983	6.983	5.936

Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors

Fugitive Emissions From Well Header and Test Vessel V-1 and Associated Components								
Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	58	2,000	0.0000	7.392E-04	0.043	0.043	0.036
	Light Crude Oil	58	2,000	0.0000	7.392E-04	0.043	0.043	0.036
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	1.003E-02	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	8	2,000	0.0000	2.376E-03	0.019	0.019	0.016
	Light Crude Oil	8	2,000	0.0000	3.379E-03	0.027	0.027	0.023
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	138	2,000	0.0000	4.488E-04	0.062	0.062	0.053
	Light Crude Oil	288	2,000	0.0000	4.541E-04	0.131	0.131	0.111
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	48	2,000	0.0000	1.373E-04	0.007	0.007	0.006
	Light Crude Oil	48	2,000	0.0000	8.448E-05	0.004	0.004	0.003
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.335	0.335	0.285
Gas	VOC content (%) of TOG		100.00		Methane content (%) of TOG			
Liquid	VOC content (%) of TOG		100.00		Methane content (%) of TOG			
					85.00			
					85.00			

Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors

Fugitive Emissions From Well Header and Test Vessel V-2 and Associated Components

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	58	2,000	0.0000	7.392E-04	0.043	0.043	0.036
	Light Crude Oil	58	2,000	0.0000	7.392E-04	0.043	0.043	0.036
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	1.003E-02	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	8	2,000	0.0000	2.376E-03	0.019	0.019	0.016
	Light Crude Oil	8	2,000	0.0000	3.379E-03	0.027	0.027	0.023
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	138	2,000	0.0000	4.488E-04	0.062	0.062	0.053
	Light Crude Oil	288	2,000	0.0000	4.541E-04	0.131	0.131	0.111
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	48	2,000	0.0000	1.373E-04	0.007	0.007	0.006
	Light Crude Oil	48	2,000	0.0000	8.448E-05	0.004	0.004	0.003
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.335	0.335	0.285
Gas	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
								85.00
								85.00

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Fugitive Emissions From Well Header Test Vessel V-3 and Associated Components								
Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	58	2,000	0.0000	7.392E-04	0.043	0.043	0.036
	Light Crude Oil	58	2,000	0.0000	7.392E-04	0.043	0.043	0.036
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	1.003E-02	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	8	2,000	0.0000	2.376E-03	0.019	0.019	0.016
	Light Crude Oil	8	2,000	0.0000	3.379E-03	0.027	0.027	0.023
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	138	2,000	0.0000	4.488E-04	0.062	0.062	0.053
	Light Crude Oil	288	2,000	0.0000	4.541E-04	0.131	0.131	0.111
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	48	2,000	0.0000	1.373E-04	0.007	0.007	0.006
	Light Crude Oil	48	2,000	0.0000	8.448E-05	0.004	0.004	0.003
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.335	0.335	0.285
Gas	VOC content (%) of TOG		100.00		Methane content (%) of TOG		85.00	
Liquid	VOC content (%) of TOG		100.00		Methane content (%) of TOG		85.00	

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Fugitive Emissions From Well Header and Test Vessel V-4 and Associated Components								
Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	58	2,000	0.0000	7.392E-04	0.043	0.043	0.036
	Light Crude Oil	58	2,000	0.0000	7.392E-04	0.043	0.043	0.036
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	1.003E-02	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	8	2,000	0.0000	2.376E-03	0.019	0.019	0.016
	Light Crude Oil	8	2,000	0.0000	3.379E-03	0.027	0.027	0.023
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	138	2,000	0.0000	4.488E-04	0.062	0.062	0.053
	Light Crude Oil	288	2,000	0.0000	4.541E-04	0.131	0.131	0.111
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	48	2,000	0.0000	1.373E-04	0.007	0.007	0.006
	Light Crude Oil	48	2,000	0.0000	8.448E-05	0.004	0.004	0.003
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.335	0.335	0.285
Gas	VOC content (%) of TOG		100.00		Methane content (%) of TOG		85.00	
Liquid	VOC content (%) of TOG		100.00		Methane content (%) of TOG		85.00	

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Fugitive Emissions From Tank T-1 and Associated Components

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	12	10,000	0.0000	1.320E-03	0.016	0.016	0.013
	Light Crude Oil	39	10,000	0.0000	1.003E-03	0.039	0.039	0.033
	Heavy Crude Oil	0	10,000	0.0000	4.435E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	10,000	0.0000	1.848E-02	0.000	0.000	0.000
	Light Crude Oil	3	10,000	0.0000	2.693E-02	0.081	0.081	0.069
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	3	10,000	0.0000	6.336E-03	0.019	0.019	0.016
	Light Crude Oil	12	10,000	0.0000	7.392E-03	0.089	0.089	0.075
	Heavy Crude Oil	0	10,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	24	10,000	0.0000	5.280E-04	0.013	0.013	0.011
	Light Crude Oil	168	10,000	0.0000	5.122E-04	0.086	0.086	0.073
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	12	10,000	0.0000	3.010E-04	0.004	0.004	0.003
	Light Crude Oil	41	10,000	0.0000	1.267E-04	0.005	0.005	0.004
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	10,000	0.0000	7.920E-04	0.000	0.000	0.000
	Light Crude Oil	0	10,000	0.0000	7.392E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	10,000	0.0000	3.802E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.351	0.351	0.298
Gas Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
								85.00
								85.00

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Fugitive Emissions From Tank T-2 and Associated Components

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	12	10,000	0.0000	1.320E-03	0.016	0.016	0.013
	Light Crude Oil	39	10,000	0.0000	1.003E-03	0.039	0.039	0.033
	Heavy Crude Oil	0	10,000	0.0000	4.435E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	10,000	0.0000	1.848E-02	0.000	0.000	0.000
	Light Crude Oil	3	10,000	0.0000	2.693E-02	0.081	0.081	0.069
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	3	10,000	0.0000	6.336E-03	0.019	0.019	0.016
	Light Crude Oil	12	10,000	0.0000	7.392E-03	0.089	0.089	0.075
	Heavy Crude Oil	0	10,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	24	10,000	0.0000	5.280E-04	0.013	0.013	0.011
	Light Crude Oil	168	10,000	0.0000	5.122E-04	0.086	0.086	0.073
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	12	10,000	0.0000	3.010E-04	0.004	0.004	0.003
	Light Crude Oil	41	10,000	0.0000	1.267E-04	0.005	0.005	0.004
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	10,000	0.0000	7.920E-04	0.000	0.000	0.000
	Light Crude Oil	0	10,000	0.0000	7.392E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	10,000	0.0000	3.802E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.351	0.351	0.298
Gas	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
								85.00
								85.00

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Fugitive Emissions From Tank T-3 and Associated Components									
Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions			
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)	
Valves	Gas/Light Liquid	12	10,000	0.0000	1.320E-03	0.016	0.016	0.013	
	Light Crude Oil	39	10,000	0.0000	1.003E-03	0.039	0.039	0.033	
	Heavy Crude Oil	0	10,000	0.0000	4.435E-04	0.000	0.000	0.000	
Pump Seals	Gas/Light Liquid	0	10,000	0.0000	1.848E-02	0.000	0.000	0.000	
	Light Crude Oil	3	10,000	0.0000	2.693E-02	0.081	0.081	0.069	
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000	
Others	Gas/Light Liquid	3	10,000	0.0000	6.336E-03	0.019	0.019	0.016	
	Light Crude Oil	12	10,000	0.0000	7.392E-03	0.089	0.089	0.075	
	Heavy Crude Oil	0	10,000	0.0000	1.690E-03	0.000	0.000	0.000	
Connectors	Gas/Light Liquid	24	10,000	0.0000	5.280E-04	0.013	0.013	0.011	
	Light Crude Oil	168	10,000	0.0000	5.122E-04	0.086	0.086	0.073	
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000	
Flanges	Gas/Light Liquid	12	10,000	0.0000	3.010E-04	0.004	0.004	0.003	
	Light Crude Oil	41	10,000	0.0000	1.267E-04	0.005	0.005	0.004	
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000	
Open-ended Lines	Gas/Light Liquid	0	10,000	0.0000	7.920E-04	0.000	0.000	0.000	
	Light Crude Oil	0	10,000	0.0000	7.392E-04	0.000	0.000	0.000	
	Heavy Crude Oil	0	10,000	0.0000	3.802E-04	0.000	0.000	0.000	
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.351	0.351	0.298	
Gas Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00	
	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00	

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Fugitive Emissions From Tank T-4 and Associated Components									
Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions			
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)	
Valves	Gas/Light Liquid	12	10,000	0.0000	1.320E-03	0.016	0.016	0.013	
	Light Crude Oil	39	10,000	0.0000	1.003E-03	0.039	0.039	0.033	
	Heavy Crude Oil	0	10,000	0.0000	4.435E-04	0.000	0.000	0.000	
Pump Seals	Gas/Light Liquid	0	10,000	0.0000	1.848E-02	0.000	0.000	0.000	
	Light Crude Oil	3	10,000	0.0000	2.693E-02	0.081	0.081	0.069	
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000	
Others	Gas/Light Liquid	3	10,000	0.0000	6.336E-03	0.019	0.019	0.016	
	Light Crude Oil	12	10,000	0.0000	7.392E-03	0.089	0.089	0.075	
	Heavy Crude Oil	0	10,000	0.0000	1.690E-03	0.000	0.000	0.000	
Connectors	Gas/Light Liquid	24	10,000	0.0000	5.280E-04	0.013	0.013	0.011	
	Light Crude Oil	168	10,000	0.0000	5.122E-04	0.086	0.086	0.073	
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000	
Flanges	Gas/Light Liquid	12	10,000	0.0000	3.010E-04	0.004	0.004	0.003	
	Light Crude Oil	41	10,000	0.0000	1.267E-04	0.005	0.005	0.004	
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000	0.000	
Open-ended Lines	Gas/Light Liquid	0	10,000	0.0000	7.920E-04	0.000	0.000	0.000	
	Light Crude Oil	0	10,000	0.0000	7.392E-04	0.000	0.000	0.000	
	Heavy Crude Oil	0	10,000	0.0000	3.802E-04	0.000	0.000	0.000	
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.351	0.351	0.298	
Gas	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00	
Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00	

Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors

Fugitive Emissions From Tank T-5 and Associated Components							
Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions	
						TOG (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	12	10,000	0.0000	1.320E-03	0.016	0.013
	Light Crude Oil	39	10,000	0.0000	1.003E-03	0.039	0.033
	Heavy Crude Oil	0	10,000	0.0000	4.435E-04	0.000	0.000
Pump Seals	Gas/Light Liquid	0	10,000	0.0000	1.848E-02	0.000	0.000
	Light Crude Oil	3	10,000	0.0000	2.693E-02	0.081	0.069
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000
Others	Gas/Light Liquid	3	10,000	0.0000	6.336E-03	0.019	0.016
	Light Crude Oil	12	10,000	0.0000	7.392E-03	0.089	0.075
	Heavy Crude Oil	0	10,000	0.0000	1.690E-03	0.000	0.000
Connectors	Gas/Light Liquid	24	10,000	0.0000	5.280E-04	0.013	0.011
	Light Crude Oil	168	10,000	0.0000	5.122E-04	0.086	0.073
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000
Flanges	Gas/Light Liquid	12	10,000	0.0000	3.010E-04	0.004	0.003
	Light Crude Oil	41	10,000	0.0000	1.267E-04	0.005	0.004
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	10,000	0.0000	7.920E-04	0.000	0.000
	Light Crude Oil	0	10,000	0.0000	7.392E-04	0.000	0.000
	Heavy Crude Oil	0	10,000	0.0000	3.802E-04	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.351	0.298
Gas	VOC content (%) of TOG		100.00			Methane content (%) of TOG	
Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG	
							85.00
							85.00

Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors

Fugitive Emissions From Drain Tank T-6 and Associated Components							
Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions	
						TOG (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	5	10,000	0.0000	1.320E-03	0.007	0.006
	Light Crude Oil	20	10,000	0.0000	1.003E-03	0.020	0.017
	Heavy Crude Oil	0	10,000	0.0000	4.435E-04	0.000	0.000
Pump Seals	Gas/Light Liquid	0	10,000	0.0000	1.848E-02	0.000	0.000
	Light Crude Oil	3	10,000	0.0000	2.693E-02	0.081	0.069
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000
Others	Gas/Light Liquid	3	10,000	0.0000	6.336E-03	0.019	0.016
	Light Crude Oil	12	10,000	0.0000	7.392E-03	0.089	0.075
	Heavy Crude Oil	0	10,000	0.0000	1.690E-03	0.000	0.000
Connectors	Gas/Light Liquid	24	10,000	0.0000	5.280E-04	0.013	0.011
	Light Crude Oil	108	10,000	0.0000	5.122E-04	0.055	0.047
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000
Flanges	Gas/Light Liquid	12	10,000	0.0000	3.010E-04	0.004	0.003
	Light Crude Oil	41	10,000	0.0000	1.267E-04	0.005	0.004
	Heavy Crude Oil	0	10,000	0.0000	0.000E+00	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	10,000	0.0000	7.920E-04	0.000	0.000
	Light Crude Oil	0	10,000	0.0000	7.392E-04	0.000	0.000
	Heavy Crude Oil	0	10,000	0.0000	3.802E-04	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.292	0.248
Gas Liquid	VOC content (%) of TOG		100.00		Methane content (%) of TOG		85.00
	VOC content (%) of TOG		100.00		Methane content (%) of TOG		85.00

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Fugitive Emissions From Tank VRS Compressor K-1A and Associated Components								
Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	120	2,000	0.0000	7.392E-04	0.089	0.089	0.075
	Light Crude Oil	48	2,000	0.0000	7.392E-04	0.035	0.035	0.030
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	5	2,000	0.0000	1.214E-02	0.061	0.061	0.052
	Light Crude Oil	5	2,000	0.0000	1.003E-02	0.050	0.050	0.043
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	5	2,000	0.0000	2.376E-03	0.012	0.012	0.010
	Light Crude Oil	5	2,000	0.0000	3.379E-03	0.017	0.017	0.014
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	216	2,000	0.0000	4.488E-04	0.097	0.097	0.082
	Light Crude Oil	216	2,000	0.0000	4.541E-04	0.098	0.098	0.083
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	90	2,000	0.0000	1.373E-04	0.012	0.012	0.011
	Light Crude Oil	90	2,000	0.0000	8.448E-05	0.008	0.008	0.006
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.479	0.479	0.407
Gas	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00
Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00

Fugitive VOC Emissions From Components Calculated From Component Counts and EPA ALR Emission Factors

Fugitive Emissions From Tank VRS Compressor K-1B and Associated Components

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	120	2,000	0.0000	7.392E-04	0.089	0.089	0.075
	Light Crude Oil	48	2,000	0.0000	7.392E-04	0.035	0.035	0.030
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	5	2,000	0.0000	1.214E-02	0.061	0.061	0.052
	Light Crude Oil	5	2,000	0.0000	1.003E-02	0.050	0.050	0.043
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	5	2,000	0.0000	2.376E-03	0.012	0.012	0.010
	Light Crude Oil	5	2,000	0.0000	3.379E-03	0.017	0.017	0.014
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	216	2,000	0.0000	4.488E-04	0.097	0.097	0.082
	Light Crude Oil	216	2,000	0.0000	4.541E-04	0.098	0.098	0.083
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	90	2,000	0.0000	1.373E-04	0.012	0.012	0.011
	Light Crude Oil	90	2,000	0.0000	8.448E-05	0.008	0.008	0.006
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.479	0.479	0.407
Gas	VOC content (%) of TOG		100.00				Methane content (%) of TOG	85.00
Liquid	VOC content (%) of TOG		100.00				Methane content (%) of TOG	85.00

Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors

Fugitive Emissions Compressor Scrubber Vessel V-6 and Associated Components								
Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	32	2,000	0.0000	7.392E-04	0.024	0.024	0.020
	Light Crude Oil	32	2,000	0.0000	7.392E-04	0.024	0.024	0.020
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000
	Light Crude Oil	3	2,000	0.0000	1.003E-02	0.030	0.030	0.026
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	6	2,000	0.0000	2.376E-03	0.014	0.014	0.012
	Light Crude Oil	6	2,000	0.0000	3.379E-03	0.020	0.020	0.017
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	138	2,000	0.0000	4.488E-04	0.062	0.062	0.053
	Light Crude Oil	168	2,000	0.0000	4.541E-04	0.076	0.076	0.065
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	51	2,000	0.0000	1.373E-04	0.007	0.007	0.006
	Light Crude Oil	51	2,000	0.0000	8.448E-05	0.004	0.004	0.004
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.261	0.261	0.222
Gas	VOC content (%) of TOG		100.00		Methane content (%) of TOG			
Liquid	VOC content (%) of TOG		100.00		Methane content (%) of TOG			
					85.00			
					85.00			

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Fugitive Emissions From Gas Compressor K-2A and Associated Components									
Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions			
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)	
Valves	Gas/Light Liquid	36	2,000	0.0000	7.392E-04	0.027	0.027	0.023	
	Light Crude Oil	72	2,000	0.0000	7.392E-04	0.053	0.053	0.045	
	Heavy Crude Oil	12	2,000	0.0000	4.118E-04	0.005	0.005	0.004	
Pump Seals	Gas/Light Liquid	2	2,000	0.0000	1.214E-02	0.024	0.024	0.021	
	Light Crude Oil	2	2,000	0.0000	1.003E-02	0.020	0.020	0.017	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Others	Gas/Light Liquid	3	2,000	0.0000	2.376E-03	0.007	0.007	0.006	
	Light Crude Oil	3	2,000	0.0000	3.379E-03	0.010	0.010	0.009	
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000	
Connectors	Gas/Light Liquid	300	2,000	0.0000	4.488E-04	0.135	0.135	0.114	
	Light Crude Oil	300	2,000	0.0000	4.541E-04	0.136	0.136	0.116	
	Heavy Crude Oil	12	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Flanges	Gas/Light Liquid	180	2,000	0.0000	1.373E-04	0.025	0.025	0.021	
	Light Crude Oil	120	2,000	0.0000	8.448E-05	0.010	0.010	0.009	
	Heavy Crude Oil	12	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000	
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.452	0.452	0.384	
Gas	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00	
Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00	

Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors

Fugitive Emissions From Gas Compressor K-2B and Associated Components									
Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions			
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)	
Valves	Gas/Light Liquid	36	2,000	0.0000	7.392E-04	0.027	0.027	0.023	
	Light Crude Oil	72	2,000	0.0000	7.392E-04	0.053	0.053	0.045	
	Heavy Crude Oil	12	2,000	0.0000	4.118E-04	0.005	0.005	0.004	
Pump Seals	Gas/Light Liquid	2	2,000	0.0000	1.214E-02	0.024	0.024	0.021	
	Light Crude Oil	2	2,000	0.0000	1.003E-02	0.020	0.020	0.017	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Others	Gas/Light Liquid	3	2,000	0.0000	2.376E-03	0.007	0.007	0.006	
	Light Crude Oil	3	2,000	0.0000	3.379E-03	0.010	0.010	0.009	
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000	
Connectors	Gas/Light Liquid	300	2,000	0.0000	4.488E-04	0.135	0.135	0.114	
	Light Crude Oil	300	2,000	0.0000	4.541E-04	0.136	0.136	0.116	
	Heavy Crude Oil	12	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Flanges	Gas/Light Liquid	180	2,000	0.0000	1.373E-04	0.025	0.025	0.021	
	Light Crude Oil	120	2,000	0.0000	8.448E-05	0.010	0.010	0.009	
	Heavy Crude Oil	12	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000	
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.452	0.452	0.384	
Gas	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00	
Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00	

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Fugitive Emissions From Gas Compressor K-2C and Associated Components									
Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions			
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)	
Valves	Gas/Light Liquid	36	2,000	0.0000	7.392E-04	0.027	0.027	0.023	
	Light Crude Oil	72	2,000	0.0000	7.392E-04	0.053	0.053	0.045	
	Heavy Crude Oil	12	2,000	0.0000	4.118E-04	0.005	0.005	0.004	
Pump Seals	Gas/Light Liquid	2	2,000	0.0000	1.214E-02	0.024	0.024	0.021	
	Light Crude Oil	2	2,000	0.0000	1.003E-02	0.020	0.020	0.017	
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Others	Gas/Light Liquid	3	2,000	0.0000	2.376E-03	0.007	0.007	0.006	
	Light Crude Oil	3	2,000	0.0000	3.379E-03	0.010	0.010	0.009	
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000	
Connectors	Gas/Light Liquid	300	2,000	0.0000	4.488E-04	0.135	0.135	0.114	
	Light Crude Oil	300	2,000	0.0000	4.541E-04	0.136	0.136	0.116	
	Heavy Crude Oil	12	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Flanges	Gas/Light Liquid	180	2,000	0.0000	1.373E-04	0.025	0.025	0.021	
	Light Crude Oil	120	2,000	0.0000	8.448E-05	0.010	0.010	0.009	
	Heavy Crude Oil	12	2,000	0.0000	0.000E+00	0.000	0.000	0.000	
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000	
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000	
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000	
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.452	0.452	0.384	
Gas	VOC content (Wt %) of TOG		100.00			Methane content (Wt %) of TOG		85.00	
liquid	VOC content (Wt %) of TOG		100.00			Methane content (Wt %) of TOG		85.00	

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Fugitive Emissions From Heat Exchanger E-1 and Associated Components

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/day)	VOC (lb/day)	Methane (lb/day)
Valves	Gas/Light Liquid	15	2,000	0.0000	7.392E-04	0.011	0.011	0.009
	Light Crude Oil	15	2,000	0.0000	7.392E-04	0.011	0.011	0.009
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	1.003E-02	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	5	2,000	0.0000	2.376E-03	0.012	0.012	0.010
	Light Crude Oil	5	2,000	0.0000	3.379E-03	0.017	0.017	0.014
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	120	2,000	0.0000	4.488E-04	0.054	0.054	0.046
	Light Crude Oil	60	2,000	0.0000	4.541E-04	0.027	0.027	0.023
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	24	2,000	0.0000	1.373E-04	0.003	0.003	0.003
	Light Crude Oil	24	2,000	0.0000	8.448E-05	0.002	0.002	0.002
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.137	0.137	0.117
Gas	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
								85.00
								85.00

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Fugitive Emissions From Glycol Dehydration Unit M-1 and Associated Components

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	108	2,000	0.0000	7.392E-04	0.080	0.080	0.068
	Light Crude Oil	72	2,000	0.0000	7.392E-04	0.053	0.053	0.045
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	5	2,000	0.0000	1.214E-02	0.061	0.061	0.052
	Light Crude Oil	0	2,000	0.0000	1.003E-02	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	15	2,000	0.0000	2.376E-03	0.036	0.036	0.030
	Light Crude Oil	15	2,000	0.0000	3.379E-03	0.051	0.051	0.043
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	60	2,000	0.0000	4.488E-04	0.027	0.027	0.023
	Light Crude Oil	72	2,000	0.0000	4.541E-04	0.033	0.033	0.028
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	120	2,000	0.0000	1.373E-04	0.016	0.016	0.014
	Light Crude Oil	72	2,000	0.0000	8.448E-05	0.006	0.006	0.005
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.362	0.362	0.308
Gas Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
	VOC content (%) of TOG		100.00			Methane content (%) of TOG		

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Fugitive Emissions From Flare Knock-Out Vessel V-5 and Associated Components

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	24	2,000	0.0000	7.392E-04	0.018	0.018	0.015
	Light Crude Oil	24	2,000	0.0000	7.392E-04	0.018	0.018	0.015
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000
	Light Crude Oil	3	2,000	0.0000	1.003E-02	0.030	0.030	0.026
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	5	2,000	0.0000	2.376E-03	0.012	0.012	0.010
	Light Crude Oil	5	2,000	0.0000	3.379E-03	0.017	0.017	0.014
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	90	2,000	0.0000	4.488E-04	0.040	0.040	0.034
	Light Crude Oil	120	2,000	0.0000	4.541E-04	0.054	0.054	0.046
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	36	2,000	0.0000	1.373E-04	0.005	0.005	0.004
	Light Crude Oil	36	2,000	0.0000	8.448E-05	0.003	0.003	0.003
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.197	0.197	0.168
Gas	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00
Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00

Fugitive VOC Emissions From Components **Calculated From Component Counts and EPA ALR Emission Factors**

Fugitive Emissions From Flare Header and Flare M-2 Plus Associated Components

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	48	2,000	0.0000	7.392E-04	0.035	0.035	0.030
	Light Crude Oil	48	2,000	0.0000	7.392E-04	0.035	0.035	0.030
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	3	2,000	0.0000	1.214E-02	0.036	0.036	0.031
	Light Crude Oil	3	2,000	0.0000	1.003E-02	0.030	0.030	0.026
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	5	2,000	0.0000	2.376E-03	0.012	0.012	0.010
	Light Crude Oil	5	2,000	0.0000	3.379E-03	0.017	0.017	0.014
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	90	2,000	0.0000	4.488E-04	0.040	0.040	0.034
	Light Crude Oil	240	2,000	0.0000	4.541E-04	0.109	0.109	0.093
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	36	2,000	0.0000	1.373E-04	0.005	0.005	0.004
	Light Crude Oil	36	2,000	0.0000	8.448E-05	0.003	0.003	0.003
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.324	0.324	0.275
Gas	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00
	VOC content (%) of TOG		100.00			Methane content (%) of TOG		85.00

**Fugitive VOC Emissions From Components
Calculated From Component Counts and EPA ALR Emission Factors**

Reserved

Type of Component	Component Service	Component Counts	Leak Threshold (ppmv)	Leak Fraction	EPA 1995 ALR TOG Factor lb/day*Component	Fugitive Emissions		
						TOG (lb/Day)	VOC (lb/Day)	Methane (lb/Day)
Valves	Gas/Light Liquid	0	2,000	0.0000	7.392E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	7.392E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	4.118E-04	0.000	0.000	0.000
Pump Seals	Gas/Light Liquid	0	2,000	0.0000	1.214E-02	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	1.003E-02	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Others	Gas/Light Liquid	0	2,000	0.0000	2.376E-03	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.379E-03	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	1.690E-03	0.000	0.000	0.000
Connectors	Gas/Light Liquid	0	2,000	0.0000	4.488E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	4.541E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Flanges	Gas/Light Liquid	0	2,000	0.0000	1.373E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	8.448E-05	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	0.000E+00	0.000	0.000	0.000
Open-ended Lines	Gas/Light Liquid	0	2,000	0.0000	3.960E-04	0.000	0.000	0.000
	Light Crude Oil	0	2,000	0.0000	3.538E-04	0.000	0.000	0.000
	Heavy Crude Oil	0	2,000	0.0000	3.168E-04	0.000	0.000	0.000
Total Fugitive VOC Emissions From Associated Components (lb/day)						0.000	0.000	0.000
Gas	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
Liquid	VOC content (%) of TOG		100.00			Methane content (%) of TOG		
								85.00

ATTACHMENT V Emissions Profiles

Permit #: C-9148-1-0	Last Updated
Facility: TEMBLOR	02/22/2017 EDGEHILR
PETROLEUM COMPANY LLC	

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	967.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	2.6
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	241.0
Q2:	0.0	0.0	0.0	0.0	242.0
Q3:	0.0	0.0	0.0	0.0	242.0
Q4:	0.0	0.0	0.0	0.0	242.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: C-9148-2-0	Last Updated
Facility: TEMBLOR	02/19/2017 EDGEHILR
PETROLEUM COMPANY LLC	

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	128.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.4
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	32.0
Q2:	0.0	0.0	0.0	0.0	32.0
Q3:	0.0	0.0	0.0	0.0	32.0
Q4:	0.0	0.0	0.0	0.0	32.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: C-9148-3-0	Last Updated
Facility: TEMBLOR	02/19/2017 EDGEHILR
PETROLEUM COMPANY LLC	

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	128.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.4
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	32.0
Q2:	0.0	0.0	0.0	0.0	32.0
Q3:	0.0	0.0	0.0	0.0	32.0
Q4:	0.0	0.0	0.0	0.0	32.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: C-9148-4-0	Last Updated
Facility: TEMBLOR	02/19/2017 EDGEHILR
PETROLEUM COMPANY LLC	

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	128.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.4
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	32.0
Q2:	0.0	0.0	0.0	0.0	32.0
Q3:	0.0	0.0	0.0	0.0	32.0
Q4:	0.0	0.0	0.0	0.0	32.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: C-9148-5-0	Last Updated
Facility: TEMBLOR	02/19/2017 EDGEHILR
PETROLEUM COMPANY LLC	

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	128.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.4
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	32.0
Q2:	0.0	0.0	0.0	0.0	32.0
Q3:	0.0	0.0	0.0	0.0	32.0
Q4:	0.0	0.0	0.0	0.0	32.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: C-9148-6-0	Last Updated
Facility: TEMBLOR	02/19/2017 EDGEHILR
PETROLEUM COMPANY LLC	

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	108.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.3
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	26.0
Q2:	0.0	0.0	0.0	0.0	26.0
Q3:	0.0	0.0	0.0	0.0	27.0
Q4:	0.0	0.0	0.0	0.0	27.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: C-9148-7-0	Last Updated
Facility: TEMBLOR	03/11/2017 EDGEHILR
PETROLEUM COMPANY LLC	

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	79.0	9.0	26.0	269.0	147.0
Daily Emis. Limit (lb/Day)	0.2	0.0	0.1	0.7	0.5
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	19.0	2.0	6.0	67.0	36.0
Q2:	20.0	2.0	6.0	67.0	37.0
Q3:	20.0	2.0	7.0	67.0	37.0
Q4:	20.0	3.0	7.0	68.0	37.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: C-9148-8-0	Last Updated
Facility: TEMBLOR	03/17/2017 EDGEHILR
PETROLEUM COMPANY LLC	

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	358.0	40.0	307.0	3071.0	716.0
Daily Ems. Limit (lb/Day)	1.0	0.1	0.9	8.4	2.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	89.0	12.0	76.0	767.0	179.0
Q2:	89.0	12.0	77.0	768.0	179.0
Q3:	90.0	12.0	77.0	768.0	179.0
Q4:	90.0	12.0	77.0	768.0	179.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: C-9148-9-0	Last Updated
Facility: TEMBLOR	03/17/2017 EDGEHILR
PETROLEUM COMPANY LLC	

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	358.0	48.0	307.0	3071.0	716.0
Daily Emis. Limit (lb/Day)	1.0	0.1	0.9	8.4	2.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	89.0	12.0	76.0	767.0	179.0
Q2:	89.0	12.0	77.0	768.0	179.0
Q3:	90.0	12.0	77.0	768.0	179.0
Q4:	90.0	12.0	77.0	768.0	179.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: C-9148-10-0	Last Updated
Facility: TEMBLOR	03/17/2017 EDGEHILR
PETROLEUM COMPANY LLC	

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	358.0	48.0	307.0	3071.0	716.0
Daily Emis. Limit (lb/Day)	1.0	0.1	0.9	8.4	2.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	89.0	12.0	76.0	767.0	179.0
Q2:	89.0	12.0	77.0	768.0	179.0
Q3:	90.0	12.0	77.0	768.0	179.0
Q4:	90.0	12.0	77.0	768.0	179.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: C-9148-11-0	Last Updated
Facility: TEMBLOR	02/19/2017
PETROLEUM COMPANY LLC	EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	2951.0	123.0	348.0	13454.0	14512.0
Daily Emis. Limit (lb/Day)	354.1	14.8	41.7	1614.5	1719.1
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	737.0	30.0	87.0	3363.0	3628.0
Q2:	738.0	31.0	87.0	3363.0	3628.0
Q3:	738.0	31.0	87.0	3364.0	3628.0
Q4:	738.0	31.0	87.0	3364.0	3628.0
Check if offsets are triggered but exemption applies	Y	Y	Y	Y	Y
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

ATTACHMENT VI BACT Analysis

C-9148-11 (flare)

1. BACT Analyses for NO_x, PM₁₀, and VOCs:

a. Step 1 - Identify all control technologies

The SJVUAPCD BACT Clearinghouse Guideline 1.4.2 (rescinded), identifies Achieved in Practice BACT for NO_x and VOC from Waste Gas Flares – Incinerating Produced Gas

Steam assisted, air assisted, or Coanda effect burner when steam is unavailable.

b. Step 2 - Eliminate technologically infeasible options

There are no technologically feasible options.

c. Step 3 - Rank remaining options by control effectiveness

Steam assisted, air assisted, or Coanda effect burner when steam is unavailable.

d. Step 4 - Cost effectiveness analysis

Because the applicant is proposing the one listed control technology (Coanda effect flare) listed Step 3 above, a cost effectiveness analysis is not required.

e. Step 5 - Select BACT

Steam assisted, air assisted, or Coanda effect burner when steam is unavailable.

2. BACT Analyses for SO_x:

a. Step 1 - Identify all control technologies

The SJVUAPCD BACT Clearinghouse Guideline 1.4.2 (current version), identifies Achieved in Practice BACT for NO_x and VOC from Waste Gas Flares – Incinerating Produced Gas

Steam assisted, air assisted, or Coanda effect burner when steam is unavailable. (Achieved-in-Practice)

Pre-combustion SO_x scrubbing system (non-emergency flares only)

b. Step 2 - Eliminate technologically infeasible options

There are no technologically feasible options.

c. Step 3 - Rank remaining options by control effectiveness

- ~~1. Pre-combustion SOx scrubbing system (non-emergency flares only)~~
2. Steam assisted, air assisted, or Coanda effect burner when steam is unavailable.

d. Step 4 - Cost effectiveness analysis

A Coanda effect burner is the only technology not eliminated (the flare is emergency). A cost effectiveness analysis is not required.

e. Step 5 - Select BACT

Coanda effect burner as steam is unavailable.

ATTACHMENT VII
AAQA/HRA

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Richard Edgehill – Permit Services
 From: Cheryl Lawler – Technical Services
 Date: April 18, 2017
 Facility Name: Temblor Petroleum Company LLC
 Location: SE/4 Section 20, T17S, R17E
 Application #(s): C-9148-1-0 thru 11-0
 Project #: C-1170155

A. RMR SUMMARY

RMR Summary						
Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required?	Special Permit Requirements?
Unit 1-0 (Crude Oil Tank)	0.03	0.00	0.00	8.00E-09	No	No
Unit 2-0 (Crude Oil Tank)	0.00	0.00	0.00	1.28E-09	No	No
Unit 3-0 (Crude Oil Tank)	0.00	0.00	0.00	1.11E-09	No	No
Unit 4-0 (Crude Oil Tank)	0.00	0.00	0.00	1.22E-09	No	No
Unit 5-0 (Crude Oil Tank)	0.00	0.00	0.00	1.17E-09	No	No
Unit 6-0 (Crude Oil Tank)	0.00	0.00	0.00	8.58E-10	No	No
Unit 7-0 (Gas Dehydration)	0.00	0.00	0.00	1.21E-10	No	No
Unit 8-0 (Natural Gas ICE)	1.70	0.03	0.02	4.29E-07	No	Yes
Unit 9-0 (Natural Gas ICE)	1.70	0.03	0.02	4.32E-07	No	Yes
Unit 10-0 (Natural Gas ICE)	1.70	0.03	0.02	4.36E-07	No	Yes
Unit 11-0 (Flare)	1.51	0.04	0.00	1.58E-08	No	Yes
Project Totals	>1	0.09	0.06	1.33E-06		
Facility Totals	>1	0.09	0.06	1.33E-06		

Proposed Permit Requirements

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Units 8-0, 9-0, 10-0, & 11-0

1. 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.

B. RMR REPORT

I. Project Description

Technical Services received a request on February 6, 2017, to perform an Ambient Air Quality Analysis (AAQA) and a Risk Management Review (RMR) for a crude oil production facility consisting of six tanks, a gas dehydration unit, three natural gas internal combustion engines, and a flare.

II. Analysis

For Units 1-0 thru 6-0, toxic emissions from oilfield fugitives were calculated using emission factors derived from 1991 source tests of Central Valley sites. For Unit 7-0, toxic emission factors were derived from data in the 1992 Radian Corporation report to WSPA. The downstream treated gas from the gas dehydration was assumed to release from the flare. For Units 8-0 thru 10-0, toxic emissions were calculated using 2000 AP42 emission factors for natural gas fired internal combustion 4 Stroke Rich Burn engines. For Unit 11-0, toxic emissions were calculated using 2001 Ventura County Air Pollution Control District emission factors for natural gas fired external combustion and from a refinery gas composition analysis from the 2005 report *FINAL REPORT Test of TDA's Direct Oxidation Process for Sulfur Recovery*. All emission rates were then input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015), risks from the project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required. The AERMOD model was used, with the parameters outlined below and meteorological data for 2007-2011 from Mendota to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters Unit 1-0			
Source Type	Circular Area	Location Type	Rural
Tank Radius (m)	4.55	Closest Receptor (m)	500
Tank Height (m)	4.9	Type of Receptor	Resident
		VOC Emission Rates (lbs)	0.11 hr 967 yr

Analysis Parameters Units 2-0 thru 5-0 (each)			
Source Type	Circular Area	Location Type	Rural
Tank Radius (m)	4.55	Closest Receptor (m)	500
Tank Height (m)	4.9	Type of Receptor	Resident
		VOC Emission Rates (lbs)	0.015 hr 128 yr

Analysis Parameters Unit 6-0			
Source Type	Circular Area	Location Type	Rural
Tank Radius (m)	2.3	Closest Receptor (m)	500
Tank Height (m)	4.9	Type of Receptor	Resident
		VOC Emission Rates (lbs)	0.012 hr 106 yr

Analysis Parameters Unit 7-0			
Source Type	Area	Location Type	Rural
X-Length (m)	5	Closest Receptor (m)	500
Y-Length (m)	5	Type of Receptor	Resident
Release Height (m)	1	Natural Gas Rates (1000 gallons)	0.002 hr 17.52 yr

Analysis Parameters Units 8-0, 9-0, 10-0 (each)			
Source Type	Point	Location Type	Rural
Stack Height (m)	4.57	Closest Receptor (m)	500
Stack Diameter (m)	0.46	Type of Receptor	Resident
Stack Exit Velocity (m/s)	2.99	Natural Gas Rates (MMscf)	0.0018 hr 15.91 yr
Stack Exit Temp. (°K)	755		

Analysis Parameters Unit 11-0 (Gas)			
Source Type	Point	Location Type	Rural
Stack Height (m)	15.62	Closest Receptor (m)	500
Stack Diameter (m)	1.96	Type of Receptor	Resident
Stack Exit Velocity (m/s)	20.0	Natural Gas Rates (MMscf)	0.0018 hr 15.91 yr
Stack Exit Temp. (°K)	1273		

Analysis Parameters Unit 11-0 (Fugitives)			
Source Type	Area	Location Type	Rural
X-Length (m)	5	Closest Receptor (m)	500
Y-Length (m)	5	Type of Receptor	Resident
Release Height (m)	1	VOC Emission Rates	0.0082 hr 190 yr

Technical Services performed modeling for criteria pollutants CO, NO_x, SO_x, and PM₁₀ with the emission rates below:

Unit #	NO _x (Lbs.)		SO _x (Lbs.)		CO (Lbs.)		PM ₁₀ (Lbs.)	
	Hr.	Yr.	Hr.	Yr.	Hr.	Yr.	Hr.	Yr.
1-0	0	0	0	0	0	0	0	0
2-0	0	0	0	0	0	0	0	0
3-0	0	0	0	0	0	0	0	0
4-0	0	0	0	0	0	0	0	0
5-0	0	0	0	0	0	0	0	0
6-0	0	0	0	0	0	0	0	0
7-0	0.05	420	0.004	50	0.16	1,437	0.017	140
8-0	0.04	338	0.004	45	0.33	2,897	0.033	290
9-0	0.04	338	0.004	45	0.33	2,897	0.033	290
10-0	0.04	338	0.004	45	0.33	2,897	0.033	290
11-0	14.75	2,951	0.617	123	67.27	13,454	1.74	348

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

	Background Site	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Fresno – Garland (2015)	Pass	X	Pass	X	X
NO _x	Fresno – Garland (2015)	Pass ¹	X	X	X	Pass
SO _x	Fresno – Garland (2015)	Pass	Pass	X	Pass	Pass
PM ₁₀	Fresno – Garland (2015)	X	X	X	Pass ²	Pass ²
PM _{2.5}	Fresno – Garland (2015)	X	X	X	Pass ³	Pass ³

*Results were taken from the attached PSD spreadsheet.

¹The project was compared to the 1-hour NO₂ National Ambient Air Quality Standard that became effective on April 12, 2010, using the District's approved procedures.

²The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

³The court has vacated EPA's PM_{2.5} SILs. Until such time as new SIL values are approved, the District will use the corresponding PM₁₀ SILs for both PM₁₀ and PM_{2.5} analyses.

III. Conclusion

For each unit, the Acute and Chronic indices are below 1.0, and the Cancer Risk factor associated with the project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit requirements listed on Page 2 of this report must be included for the units indicated.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

IV. Attachments

- A. RMR Request Form & Attachments
- B. Emails
- C. Source Group Parameters (Convert, etc.)
- D. Prioritization
- E. Risk Results
- F. Facility Summary
- G. AAQA Summary

ATTACHMENT VIII
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-9148-1-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: TEMBLOR PETROLEUM COMPANY LLC

MAILING ADDRESS:
5201 CALIFORNIA AVE
SUITE 340
BAKERSFIELD, CA 93309

LOCATION: LIGHT OIL FRESNO COUNTY

SECTION: SE 20 **TOWNSHIP:** 17S **RANGE:** 17E

EQUIPMENT DESCRIPTION:

2,000 BBL OR LESS CRUDE OIL PRODUCTION AND PROCESSING TANK, WITH VAPOR CONTROL SYSTEM (VCS) WITH TWO PERMIT EXEMPT IC ENGINE-DRIVEN COMPRESSORS SERVING TANKS C-9148-1 THROUGH '6 AND FACILITY INTAKE HEADER WELL TEST VESSELS V-1 THROUGH V-4

CONDITIONS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold or 10,000 ppmv leak threshold (for tank only) included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201]
5. Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]

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

Arnaud Marjollet, Director of Permit Services

C-9148-1-0: Apr 21 2017 2:17PM - EDGEHILL - Joint Inspection NOT Required

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726 • (559) 230-5900 • Fax (559) 230-6061

6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv) or 10,000 ppmv (for tank only), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623]
7. VOC fugitive emissions shall not exceed 1.36 lb/day from well test separators. [District Rule 2201]
8. VOC fugitive emissions shall not exceed 0.96 lb/day from vapor control system compressors. [District Rule 2201]
9. VOC fugitive emissions shall not exceed 0.35 lb/day from tank up to vapor control system trunk line. [District Rule 2201]
10. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
11. Storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201 and 4623]
12. Any tank gauging or sampling device on storage tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623]
13. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
14. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
15. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
16. Operator shall visually inspect storage tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rules 2210 and 4623]
17. Upon detection of a liquid leak from storage tank, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623]

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CONDITIONS CONTINUE ON NEXT PAGE

18. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rules 2201 and 4623]
19. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623]
20. If a component type for storage tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623]
21. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623]
22. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4409, 5.1.1]
23. For valves, threaded connections, flanges, pipes, pumps, compressors, and other components not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
24. For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
25. For polished rod stuffing boxes (PRSBs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
26. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.2]
27. Minor gas leaks from PRSBs detected during any District inspection shall not be counted toward determination of compliance with this rule provided the permittee repairs, replaces, or removes leaking PRSBs from VOC service as soon as practicable but not later than seven calendar days. [District Rule 4409, 5.1.3.1.2]
28. Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2]
29. Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3]

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CONDITIONS CONTINUE ON NEXT PAGE

30. An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1]
31. A leak from a component is when there is a major liquid leak from the component. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2]
32. A leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3]
33. A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4]
34. When 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
35. When 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
36. When 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
37. When 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
38. When compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
39. When 200 or fewer PRSBs are inspected, a leak is when more than four have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 PRSBs are inspected, a leak is when more than 2.0 % (rounded up to the nearest whole number) of the PRSBs have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
40. When 200 or fewer wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than two or more pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than 1.0 % (rounded up to the nearest whole number) of the pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
41. When pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]

42. For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1]
43. For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2]
44. All accessible operating pumps, compressors, and PRDs, in service, that are found to be leaking by audio-visual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3]
45. Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4]
46. All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5]
47. All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6]
48. All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7]
49. All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8]
50. All pipes, in service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1]
51. The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non- Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2]
52. Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10]
53. The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11]
54. A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12]
55. Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13]
56. District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14]

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57. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4409, 5.3.1]
58. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5]
59. The operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5]
60. For each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5]
61. If a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6]
62. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options 1a through 1f require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: 1a) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; 1b) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; 1e) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7]

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63. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1]
64. The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2]
65. By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4]
66. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
67. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
68. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
69. All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rule 4409, 6.2.4]
70. All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rule 4409, 6.3.1]
71. The VOC content by weight percent shall be determined using ASTM D-1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4409, 6.3.2]
72. The percent by volume liquid evaporated at 302 °F (150 °C) shall be determined using ASTM D-86. [District Rule 4409, 6.3.3]
73. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D-323, and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures specified in Appendix A of District Rule 4409. [District Rule 4409, 6.3.4]
74. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM D-287 or ASTM 1298. Sampling for API gravity shall be performed in accordance with ASTM D-4057. [District Rule 4409, 6.3.5]

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CONDITIONS CONTINUE ON NEXT PAGE

75. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4409, 6.3.6]
76. Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7]
77. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-9148-2-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: TEMBLOR PETROLEUM COMPANY LLC
MAILING ADDRESS: 5201 CALIFORNIA AVE
SUITE 340
BAKERSFIELD, CA 93309

LOCATION: LIGHT OIL FRESNO COUNTY

SECTION: SE 20 TOWNSHIP: 17S RANGE: 17E

EQUIPMENT DESCRIPTION:
2,000 BBL OR LESS CRUDE OIL PRODUCTION AND PROCESSING TANK CONNECTED TO VCS C-9148-1

CONDITIONS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201]
5. Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623]

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

Arnaud Marjollet, Director of Permit Services

C-9148-2-0 : Apr 21 2012 2:17PM - EDG:HLR : Joint Inspection NOT Required

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7. VOC fugitive emissions shall not exceed 0.35 lb/day from tank up to vapor control system trunk line. [District Rule 2201]
8. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
9. Storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201 and 4623]
10. 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 Rules 2201 and 4623]
11. Any tank gauging or sampling device on storage tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623]
12. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
13. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
14. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
15. Operator shall visually inspect storage tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rules 2210 and 4623]
16. Upon detection of a liquid leak from storage tank, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623]
17. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rules 2201 and 4623]

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CONDITIONS CONTINUE ON NEXT PAGE

18. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623]
19. If a component type for storage tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623]
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623]
21. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-9148-3-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: TEMBLOR PETROLEUM COMPANY LLC

MAILING ADDRESS:
5201 CALIFORNIA AVE
SUITE 340
BAKERSFIELD, CA 93309

LOCATION: LIGHT OIL FRESNO COUNTY

SECTION: SE 20 **TOWNSHIP:** 17S **RANGE:** 17E

EQUIPMENT DESCRIPTION:

2,000 BBL OR LESS CRUDE OIL PRODUCTION AND PROCESSING TANK CONNECTED TO VCS C-9148-1

CONDITIONS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201]
5. Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623]

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

Arnaud Marjollet, Director of Permit Services

C-0148-3-0 : Apr 21 2017 2:17PM -- EDGEHILL : Joint Inspection NOT Required

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7. VOC fugitive emissions shall not exceed 0.29 lb/day from tank up to vapor control system trunk line. [District Rule 2201]
8. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
9. Storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201 and 4623]
10. 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 Rules 2201 and 4623]
11. Any tank gauging or sampling device on storage tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623]
12. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
13. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
14. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
15. Operator shall visually inspect storage tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rules 2210 and 4623]
16. Upon detection of a liquid leak from storage tank, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623]
17. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rules 2201 and 4623]

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CONDITIONS CONTINUE ON NEXT PAGE

18. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623]
19. If a component type for storage tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623]
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623]
21. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: C-9148-4-0

LEGAL OWNER OR OPERATOR: TEMBLOR PETROLEUM COMPANY LLC
MAILING ADDRESS: 5201 CALIFORNIA AVE
SUITE 340
BAKERSFIELD, CA 93309

LOCATION: LIGHT OIL FRESNO COUNTY

SECTION: SE 20 TOWNSHIP: 17S RANGE: 17E

EQUIPMENT DESCRIPTION:
2,000 BBL OR LESS CRUDE OIL PRODUCTION AND PROCESSING TANK CONNECTED TO VCS C-9148-1

CONDITIONS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201]
5. Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623]

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

Arnaud Marjollet, Director of Permit Services
C-9148-4-0: Apr 21 2017 2:17PM - EDOEHILR : Joint Inspection NOT Required

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726 • (559) 230-5900 • Fax (559) 230-6061

7. VOC fugitive emissions shall not exceed 0.35 lb/day from tank up to vapor control system trunk line. [District Rule 2201]
8. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
9. Storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201 and 4623]
10. 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 Rules 2201 and 4623]
11. Any tank gauging or sampling device on storage tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623]
12. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
13. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
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CONDITIONS CONTINUE ON NEXT PAGE

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21. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-9148-5-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: TEMBLOR PETROLEUM COMPANY LLC
MAILING ADDRESS: 5201 CALIFORNIA AVE
SUITE 340
BAKERSFIELD, CA 93309

LOCATION: LIGHT OIL FRESNO COUNTY

SECTION: SE 20 **TOWNSHIP:** 17S **RANGE:** 17E

EQUIPMENT DESCRIPTION:
2,000 BBL OR LESS CRUDE OIL PRODUCTION AND PROCESSING TANK CONNECTED TO VCS C-9148-1

CONDITIONS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201]
5. Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director, APCO

Arnaud Marjollet, Director of Permit Services

C-9148-5-0 : Apr 21 2017 2:17PM -- EDGEMILR : Joint Inspection NOT Required

7. VOC fugitive emissions shall not exceed 0.35 lb/day from tank up to vapor control system trunk line. [District Rule 2201]
8. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
9. Storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201 and 4623]
10. 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 Rules 2201 and 4623]
11. Any tank gauging or sampling device on storage tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623]
12. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
13. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
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16. Upon detection of a liquid leak from storage tank, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623]
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CONDITIONS CONTINUE ON NEXT PAGE

18. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623]
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21. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-9148-6-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: TEMBLOR PETROLEUM COMPANY LLC

MAILING ADDRESS:
5201 CALIFORNIA AVE
SUITE 340
BAKERSFIELD, CA 93309

LOCATION: LIGHT OIL FRESNO COUNTY

SECTION: SE 20 **TOWNSHIP:** 17S **RANGE:** 17E

EQUIPMENT DESCRIPTION:

500 BBL OR LESS CRUDE OIL PRODUCTION AND PROCESSING TANK CONNECTED TO VCS C-9148-1

CONDITIONS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201]
5. Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director, APCO

Arnaud Marjollet, Director of Permit Services

C-9148-6-0: Apr 21 2017 2:17PM - EDGEHILR : Joint Inspection NOT Required

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7. VOC fugitive emissions shall not exceed 0.29 lb/day from tank up to vapor control system trunk line. [District Rule 2201]
8. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201]
9. Storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201 and 4623]
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21. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-9148-7-0

LEGAL OWNER OR OPERATOR: TEMBLOR PETROLEUM COMPANY LLC

MAILING ADDRESS: 5201 CALIFORNIA AVE
SUITE 340
BAKERSFIELD, CA 93309

LOCATION: LIGHT OIL FRESNO COUNTY

SECTION: SE 20 **TOWNSHIP:** 17S **RANGE:** 17E

EQUIPMENT DESCRIPTION:

GAS DEHYDRATION UNIT WITH FLASH VESSEL, STILL VAPORS RETURNED TO PROCESS SYSTEM, AND 0.375 MMBTU/HR NATURAL GAS-FIRED GLYCOL REBOILER (OR DISTRICT-APPROVED EQUIVALENT)

CONDITIONS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. 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]
3. 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]
4. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201]
5. 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]
6. Glycol reboiler shall be certified pursuant to Rule 4308 prior to installation. [District Rule 4308]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

C-0148-7-0 : Apr 21 2017 2:17PM - EDGEHILL : Joint Inspection NOT Required

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7. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
8. 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]
9. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
10. Sulfur content of natural gas combusted in glycol reboiler shall not exceed 1 gr S/100 scf. [District Rule 2201]
11. Emissions from the glycol reboiler, while firing PUC-quality natural gas as defined by Rule 4308, shall not exceed any of the following limits: 20 ppmvd NOx @ 3% O2 or 0.024 lb/MMBtu, and 115 ppmvd CO. [District Rules 2201 and 4308]
12. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using emissions factors from California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon leaks at Petroleum Facilities Table IV-2c: Oil and Gas production Screening Value Ranges (<10,000 ppmv) Emission Factors " (EPA - 453/R-95-017, November 1995). [District Rule 2201]
13. A leak-free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 2,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A gas or liquid leak is a violation of this permit. [District Rule 2201]
14. VOC fugitive emissions shall not exceed 0.36 lb/day. [District Rule 2201]
15. If the glycol reboiler 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 EPA Method 11 or Method 15. [District Rule 2201]
16. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, permittee shall demonstrate compliance at least annually. [District Rule 2201]
17. If the glycol reboiler 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 2201]
18. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4409, 5.1.1]
19. For valves, threaded connections, flanges, pipes, pumps, compressors, and other components not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
20. For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
21. For polished rod stuffing boxes (PRSBs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
22. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.2]
23. Minor gas leaks from PRSBs detected during any District inspection shall not be counted toward determination of compliance with this rule provided the permittee repairs, replaces, or removes leaking PRSBs from VOC service as soon as practicable but not later than seven calendar days. [District Rule 4409, 5.1.3.1.2]

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24. Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2]
25. Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3]
26. An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1]
27. A leak from a component is when there is a major liquid leak from the component. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2]
28. A leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3]
29. A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4]
30. When 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
31. When 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
32. When 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
33. When 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
34. When compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
35. When 200 or fewer PRSBs are inspected, a leak is when more than four have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 PRSBs are inspected, a leak is when more than 2.0 % (rounded up to the nearest whole number) of the PRSBs have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]

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36. When 200 or fewer wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than two or more pipes have a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq$ or equal to $50,000$ ppmv. When greater than 200 wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than 1.0 % (rounded up to the nearest whole number) of the pipes have a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq$ or equal to $50,000$ ppmv. [District Rule 4409, 5.1.4.4]
37. When pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq$ or equal to $50,000$ ppmv. [District Rule 4409, 5.1.4.4]
38. For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1]
39. For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2]
40. All accessible operating pumps, compressors, and PRDs, in service, that are found to be leaking by audio-visual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3]
41. Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4]
42. All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5]
43. All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6]
44. All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7]
45. All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8]
46. All pipes, in service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1]
47. The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non- Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2]
48. Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10]
49. The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11]
50. A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12]

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51. Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13]
52. District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14]
53. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4409, 5.3.1]
54. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5]
55. The operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5]
56. For each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5]
57. If a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6]

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58. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options 1a through 1f require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: 1a) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; 1b) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; 1e) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7]
59. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1]
60. The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2]
61. By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4]
62. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
63. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
64. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
65. All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rule 4409, 6.2.4]

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66. All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rule 4409, 6.3.1]
67. The VOC content by weight percent shall be determined using ASTM D-1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4409, 6.3.2]
68. The percent by volume liquid evaporated at 302 °F (150 °C) shall be determined using ASTM D-86. [District Rule 4409, 6.3.3]
69. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D-323, and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures specified in Appendix A of District Rule 4409. [District Rule 4409, 6.3.4]
70. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM D-287 or ASTM 1298. Sampling for API gravity shall be performed in accordance with ASTM D-4057. [District Rule 4409, 6.3.5]
71. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4409, 6.3.6]
72. Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7]
73. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-9148-8-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: TEMBLOR PETROLEUM COMPANY LLC

MAILING ADDRESS:
5201 CALIFORNIA AVE
SUITE 340
BAKERSFIELD, CA 93309

LOCATION: LIGHT OIL FRESNO COUNTY

SECTION: SE 20 **TOWNSHIP:** 17S **RANGE:** 17E

EQUIPMENT DESCRIPTION:

265 BHP NATURAL GAS-FIRED IC ENGINES SERVING ONE NATURAL GAS COMPRESSOR

CONDITIONS

1. 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]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1]
3. Temblor Petroleum Company shall operate and maintain the air fuel ratio (AFR) controller appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [District Rule 2201]
4. NOx emission concentrations shall not exceed 5 ppm by volume at 15% O2. [District Rule 2201, District Rule 4701, 5.1; and District Rule 4702, 5.1]
5. VOC emissions concentrations shall not exceed 23 ppmv at 15% O2. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1]
6. CO emission concentrations shall not exceed 56 ppm by volume at 15% O2. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1]
7. Unit shall be fired only on natural gas with a sulfur content of less than or equal to 1.0 grains per 100 dry standard cubic feet of fuel gas. [District Rule 2201 and District Rule 4801]
8. Emissions from the engine shall neither exceed SOx (as SO2) - 0.00285 lb/1,000 scf of fuel burned, nor PM10 - 0.019 lb/1,000 scf of fuel burned. [District Rule 2201]

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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

Arnaud Marjollet, Director of Permit Services

C-9148-8-0; Apr 21 2017 2:17PM - EDOEHILR : Joint Inspection NOT Required

9. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201]
10. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201]
11. VOC fugitive emissions shall not exceed 0.85 lb/day. [District Rule 2201]
12. The permittee shall monitor and record the stack concentration of NO_x, 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. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2520, 9.3.2 & 9.4.2; 4701, 5.4; and 4702, 5.6 and 6.5]
13. If either the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2; 4701, 5.4; and 4702, 5.6 and 6.5]
14. All 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 by the portable analyzer 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 4701, 5.4 and 4702, 5.6]
15. NO_x, CO, and VOC emissions shall be measured (source tested) within 60 days of startup and not less than once every 24 months thereafter. [District Rules 4701, 6.3.1 and 4702, 6.3.1]
16. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 1081; 4701, 6.4; and 4702, 6.4]
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. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
19. If the engine is fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, then the permittee shall maintain on file copies of all natural gas bills and supplier certifications for a period of five years. [District Rules 1070 and 2201]
20. If the engine is not fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, then the sulfur content of the natural gas being fired in the engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rules 2201]

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21. If the engine is not fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201]
22. Permittee shall maintain accurate records of fuel gas BTU content, and daily records of volume and sulfur content of gas burned. [District Rule 1070]
23. The portable analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. [District Rule 4702]
24. The permittee shall maintain records of: (1) total hours of operation; (2) type and quantity of fuel used; (3) maintenance or modifications performed; (4) the date and time of NO_x, CO, and O₂ measurements; (5) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 15% O₂; (6) make and model of exhaust gas analyzer; (7) exhaust gas analyzer calibration records; and (8) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701, 6.2 and 4702, 6.2]
25. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. The owner or operator shall maintain the required meters in proper operating condition. [District Rule 4702, 5.6.6]
26. The Permittee shall begin the daily recording of the inlet temperature to the catalyst bed by June 26, 2012 in order to ensure compliance with the requirements of 40 CFR 64, Compliance Assurance Monitoring (CAM). [District Rule 2520, 9.4.2 and 40 CFR 64]
27. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4409, 5.1.1]
28. For valves, threaded connections, flanges, pipes, pumps, compressors, and other components not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
29. For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
30. For polished rod stuffing boxes (PRSBs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
31. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.2]
32. Minor gas leaks from PRSBs detected during any District inspection shall not be counted toward determination of compliance with this rule provided the permittee repairs, replaces, or removes leaking PRSBs from VOC service as soon as practicable but not later than seven calendar days. [District Rule 4409, 5.1.3.1.2]
33. Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2]

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34. Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3]
35. An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1]
36. A leak from a component is when there is a major liquid leak from the component. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2]
37. A leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3]
38. A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4]
39. When 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
40. When 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
41. When 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
42. When 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
43. When compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
44. When 200 or fewer PRSBs are inspected, a leak is when more than four have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 PRSBs are inspected, a leak is when more than 2.0 % (rounded up to the nearest whole number) of the PRSBs have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
45. When 200 or fewer wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than two or more pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than 1.0 % (rounded up to the nearest whole number) of the pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]

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46. When pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq$ or equal to $50,000$ ppmv. [District Rule 4409, 5.1.4.4]
47. For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1]
48. For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2]
49. All accessible operating pumps, compressors, and PRDs, in service, that are found to be leaking by audio-visual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3]
50. Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4]
51. All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5]
52. All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6]
53. All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7]
54. All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8]
55. All pipes, in service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1]
56. The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non- Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2]
57. Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10]
58. The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11]
59. A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12]
60. Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13]
61. District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14]

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62. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4409, 5.3.1]
63. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5]
64. The operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5]
65. For each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5]
66. If a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6]
67. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options 1a through 1f require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: 1a) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; 1b) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; 1e) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7]

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68. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1]
69. The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2]
70. By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4]
71. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
72. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
73. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
74. All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rule 4409, 6.2.4]
75. All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rule 4409, 6.3.1]
76. The VOC content by weight percent shall be determined using ASTM D-1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4409, 6.3.2]
77. The percent by volume liquid evaporated at 302 °F (150 °C) shall be determined using ASTM D-86. [District Rule 4409, 6.3.3]
78. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D-323, and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures specified in Appendix A of District Rule 4409. [District Rule 4409, 6.3.4]
79. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM D-287 or ASTM 1298. Sampling for API gravity shall be performed in accordance with ASTM D-4057. [District Rule 4409, 6.3.5]

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80. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4409, 6.3.6]
81. Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7]
82. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-9148-9-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: TEMBLOR PETROLEUM COMPANY LLC
MAILING ADDRESS: 5201 CALIFORNIA AVE
SUITE 340
BAKERSFIELD, CA 93309

LOCATION: LIGHT OIL FRESNO COUNTY

SECTION: SE 20 **TOWNSHIP:** 17S **RANGE:** 17E

EQUIPMENT DESCRIPTION:
265 BHP NATURAL GAS-FIRED IC ENGINES SERVING ONE NATURAL GAS COMPRESSOR

CONDITIONS

1. 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]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1]
3. Temblor Petroleum Company shall operate and maintain the air fuel ratio (AFR) controller appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [District Rule 2201]
4. NOx emission concentrations shall not exceed 5 ppm by volume at 15% O2. [District Rule 2201, District Rule 4701, 5.1; and District Rule 4702, 5.1]
5. VOC emissions concentrations shall not exceed 23 ppmv at 15% O2. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1]
6. CO emission concentrations shall not exceed 56 ppm by volume at 15% O2. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1]
7. Unit shall be fired only on natural gas with a sulfur content of less than or equal to 1.0 grains per 100 dry standard cubic feet of fuel gas. [District Rule 2201 and District Rule 4801]
8. Emissions from the engine shall neither exceed SOx (as SO2) - 0.00285 lb/1,000 scf of fuel burned, nor PM10 - 0.019 lb/1,000 scf of fuel burned. [District Rule 2201]

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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

Arnaud Marjollet, Director of Permit Services

C-9148-9-0 : Apr 21 2017 2:17PM - EDGEHILL : Joint Inspection NOT Required

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726 • (559) 230-5900 • Fax (559) 230-6061

9. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201]
10. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201]
11. VOC fugitive emissions shall not exceed 0.45 lb/day. [District Rule 2201]
12. The permittee shall monitor and record the stack concentration of NO_x, 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. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2520, 9.3.2 & 9.4.2; 4701, 5.4; and 4702, 5.6 and 6.5]
13. If either the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2; 4701, 5.4; and 4702, 5.6 and 6.5]
14. All 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 by the portable analyzer 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 4701, 5.4 and 4702, 5.6]
15. NO_x, CO, and VOC emissions shall be measured (source tested) within 60 days of startup and not less than once every 24 months thereafter. [District Rules 4701, 6.3.1 and 4702, 6.3.1]
16. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 1081; 4701, 6.4; and 4702, 6.4]
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. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
19. If the engine is fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, then the permittee shall maintain on file copies of all natural gas bills and supplier certifications for a period of five years. [District Rules 1070 and 2201]
20. If the engine is not fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, then the sulfur content of the natural gas being fired in the engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rules 2201]

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21. If the engine is not fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201]
22. Permittee shall maintain accurate records of fuel gas BTU content, and daily records of volume and sulfur content of gas burned. [District Rule 1070]
23. The portable analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. [District Rule 4702]
24. The permittee shall maintain records of: (1) total hours of operation; (2) type and quantity of fuel used; (3) maintenance or modifications performed; (4) the date and time of NO_x, CO, and O₂ measurements; (5) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 15% O₂; (6) make and model of exhaust gas analyzer; (7) exhaust gas analyzer calibration records; and (8) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701, 6.2 and 4702, 6.2]
25. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. The owner or operator shall maintain the required meters in proper operating condition. [District Rule 4702, 5.6.6]
26. The Permittee shall begin the daily recording of the inlet temperature to the catalyst bed by June 26, 2012 in order to ensure compliance with the requirements of 40 CFR 64, Compliance Assurance Monitoring (CAM). [District Rule 2520, 9.4.2 and 40 CFR 64]
27. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4409, 5.1.1]
28. For valves, threaded connections, flanges, pipes, pumps, compressors, and other components not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
29. For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
30. For polished rod stuffing boxes (PRSBs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
31. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.2]
32. Minor gas leaks from PRSBs detected during any District inspection shall not be counted toward determination of compliance with this rule provided the permittee repairs, replaces, or removes leaking PRSBs from VOC service as soon as practicable but not later than seven calendar days. [District Rule 4409, 5.1.3.1.2]
33. Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2]

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34. Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3]
35. An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1]
36. A leak from a component is when there is a major liquid leak from the component. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2]
37. A leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3]
38. A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4]
39. When 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
40. When 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
41. When 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
42. When 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
43. When compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
44. When 200 or fewer PRSBs are inspected, a leak is when more than four have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 PRSBs are inspected, a leak is when more than 2.0 % (rounded up to the nearest whole number) of the PRSBs have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
45. When 200 or fewer wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than two or more pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than 1.0 % (rounded up to the nearest whole number) of the pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]

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46. When pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq 50,000$ ppmv. [District Rule 4409, 5.1.4.4]
47. For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1]
48. For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2]
49. All accessible operating pumps, compressors, and PRDs, in service, that are found to be leaking by audio-visual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3]
50. Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4]
51. All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5]
52. All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6]
53. All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7]
54. All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8]
55. All pipes, in service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1]
56. The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non- Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2]
57. Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10]
58. The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11]
59. A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12]
60. Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13]
61. District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14]

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62. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4409, 5.3.1]
63. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5]
64. The operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5]
65. For each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5]
66. If a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6]
67. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options 1a through 1f require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: 1a) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; 1b) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; 1e) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7]

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68. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1]
69. The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2]
70. By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4]
71. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
72. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
73. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
74. All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rule 4409, 6.2.4]
75. All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rule 4409, 6.3.1]
76. The VOC content by weight percent shall be determined using ASTM D-1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4409, 6.3.2]
77. The percent by volume liquid evaporated at 302 °F (150 °C) shall be determined using ASTM D-86. [District Rule 4409, 6.3.3]
78. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D-323, and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures specified in Appendix A of District Rule 4409. [District Rule 4409, 6.3.4]
79. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM D-287 or ASTM 1298. Sampling for API gravity shall be performed in accordance with ASTM D-4057. [District Rule 4409, 6.3.5]

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80. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4409, 6.3.6]
81. Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7]
82. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: C-9148-10-0

LEGAL OWNER OR OPERATOR: TEMBLOR PETROLEUM COMPANY LLC
MAILING ADDRESS: 5201 CALIFORNIA AVE
SUITE 340
BAKERSFIELD, CA 93309

LOCATION: LIGHT OIL FRESNO COUNTY

SECTION: SE 20 TOWNSHIP: 17S RANGE: 17E

EQUIPMENT DESCRIPTION:
265 BHP NATURAL GAS-FIRED IC ENGINES SERVING ONE NATURAL GAS COMPRESSOR

CONDITIONS

1. 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]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1]
3. Temblor Petroleum Company shall operate and maintain the air fuel ratio (AFR) controller appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [District Rule 2201]
4. NOx emission concentrations shall not exceed 5 ppm by volume at 15% O2. [District Rule 2201, District Rule 4701, 5.1; and District Rule 4702, 5.1]
5. VOC emissions concentrations shall not exceed 23 ppmv at 15% O2. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1]
6. CO emission concentrations shall not exceed 56 ppm by volume at 15% O2. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1]
7. Unit shall be fired only on natural gas with a sulfur content of less than or equal to 1.0 grains per 100 dry standard cubic feet of fuel gas. [District Rule 2201 and District Rule 4801]
8. Emissions from the engine shall neither exceed SOx (as SO2) - 0.00285 lb/1,000 scf of fuel burned, nor PM10 - 0.019 lb/1,000 scf of fuel burned. [District Rule 2201]

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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

Arnaud Marjollet, Director of Permit Services
C-9148-10-0; Apr 21 2017 2:11PM - EDGEHILL : Joint Inspection NOT Required

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726 • (559) 230-5900 • Fax (559) 230-6061

9. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201]
10. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201]
11. VOC fugitive emissions shall not exceed 0.45 lb/day. [District Rule 2201]
12. The permittee shall monitor and record the stack concentration of NO_x, 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. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2520, 9.3.2 & 9.4.2; 4701, 5.4; and 4702, 5.6 and 6.5]
13. If either the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2; 4701, 5.4; and 4702, 5.6 and 6.5]
14. All 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 by the portable analyzer 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 4701, 5.4 and 4702, 5.6]
15. NO_x, CO, and VOC emissions shall be measured (source tested) within 60 days of startup and not less than once every 24 months thereafter. [District Rules 4701, 6.3.1 and 4702, 6.3.1]
16. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 1081; 4701, 6.4; and 4702, 6.4]
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. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
19. If the engine is fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, then the permittee shall maintain on file copies of all natural gas bills and supplier certifications for a period of five years. [District Rules 1070 and 2201]
20. If the engine is not fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, then the sulfur content of the natural gas being fired in the engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rules 2201]

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21. If the engine is not fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201]
22. Permittee shall maintain accurate records of fuel gas BTU content, and daily records of volume and sulfur content of gas burned. [District Rule 1070]
23. The portable analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. [District Rule 4702]
24. The permittee shall maintain records of: (1) total hours of operation; (2) type and quantity of fuel used; (3) maintenance or modifications performed; (4) the date and time of NO_x, CO, and O₂ measurements; (5) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 15% O₂; (6) make and model of exhaust gas analyzer; (7) exhaust gas analyzer calibration records; and (8) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701, 6.2 and 4702, 6.2]
25. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. The owner or operator shall maintain the required meters in proper operating condition. [District Rule 4702, 5.6.6]
26. The Permittee shall begin the daily recording of the inlet temperature to the catalyst bed by June 26, 2012 in order to ensure compliance with the requirements of 40 CFR 64, Compliance Assurance Monitoring (CAM). [District Rule 2520, 9.4.2 and 40 CFR 64]
27. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4409, 5.1.1]
28. For valves, threaded connections, flanges, pipes, pumps, compressors, and other components not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
29. For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
30. For polished rod stuffing boxes (PRSBs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
31. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.2]
32. Minor gas leaks from PRSBs detected during any District inspection shall not be counted toward determination of compliance with this rule provided the permittee repairs, replaces, or removes leaking PRSBs from VOC service as soon as practicable but not later than seven calendar days. [District Rule 4409, 5.1.3.1.2]
33. Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2]

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34. Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3]
35. An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1]
36. A leak from a component is when there is a major liquid leak from the component. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2]
37. A leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3]
38. A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4]
39. When 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
40. When 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
41. When 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
42. When 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
43. When compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
44. When 200 or fewer PRSBs are inspected, a leak is when more than four have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 PRSBs are inspected, a leak is when more than 2.0 % (rounded up to the nearest whole number) of the PRSBs have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
45. When 200 or fewer wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than two or more pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than 1.0 % (rounded up to the nearest whole number) of the pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]

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46. When pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq 50,000$ ppmv. [District Rule 4409, 5.1.4.4]
47. For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1]
48. For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2]
49. All accessible operating pumps, compressors, and PRDs, in service, that are found to be leaking by audio-visual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3]
50. Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4]
51. All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5]
52. All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6]
53. All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7]
54. All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8]
55. All pipes, in service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1]
56. The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non- Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2]
57. Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10]
58. The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11]
59. A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12]
60. Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13]
61. District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14]

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62. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4409, 5.3.1]
63. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5]
64. The operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5]
65. For each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5]
66. If a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6]
67. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options 1a through 1f require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: 1a) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; 1b) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; 1e) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7]

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68. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1]
69. The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2]
70. By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4]
71. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
72. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
73. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
74. All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rule 4409, 6.2.4]
75. All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rule 4409, 6.3.1]
76. The VOC content by weight percent shall be determined using ASTM D-1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4409, 6.3.2]
77. The percent by volume liquid evaporated at 302 °F (150 °C) shall be determined using ASTM D-86. [District Rule 4409, 6.3.3]
78. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D-323, and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures specified in Appendix A of District Rule 4409. [District Rule 4409, 6.3.4]
79. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM D-287 or ASTM 1298. Sampling for API gravity shall be performed in accordance with ASTM D-4057. [District Rule 4409, 6.3.5]

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80. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4409, 6.3.6]
81. Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7]
82. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-9148-11-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: TEMBLOR PETROLEUM COMPANY LLC
MAILING ADDRESS: 5201 CALIFORNIA AVE
SUITE 340
BAKERSFIELD, CA 93309

LOCATION: LIGHT OIL FRESNO COUNTY

SECTION: SE 20 **TOWNSHIP:** 17S **RANGE:** 17E

EQUIPMENT DESCRIPTION:

4 MMSCF/DAY EMERGENCY USE JOHN ZINK INDAIR I-8 (MODEL I-8-RB) SMOKELESS COANDA FLARE WITH FLARE HEADER AND FLARE KNOCK OUT DRUM (OR DISTRICT-APPROVED EQUIVALENT)

CONDITIONS

1. 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]
2. 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]
3. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201]
4. 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]
5. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201]

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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

Arnaud Marjolle, Director of Permit Services

C-9148-11-0 : Apr 24 2017 10:07AM - EDGEHILL Joint Inspection NOT Required

6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201]
7. VOC fugitive emissions from flare knockout drum shall not exceed 0.2 lb/day. [District Rule 2201]
8. VOC fugitive emissions from flare header drum shall not exceed 0.33 lb/day. [District Rule 2201]
9. Flare shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rules 1070 and 2201]
10. Emergency is defined as any situation or a condition arising from a sudden and reasonably unforeseeable and unpreventable event beyond the control of the operator. Examples include, but are not limited to, not preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not qualify as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency. [District Rules 2201 and 4311]
11. Flare shall be operated only for testing and maintenance of the flare, required regulatory purposes, and during emergency situations. Operation of the flare for maintenance, testing, and required regulatory purposes shall not exceed 200 hours per calendar year. [District Rule 2201]
12. Flare shall not operate with visible emissions darker than 5% opacity or 1/4 Ringelmann for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
13. Flare shall be equipped with waste gas volume flow metering system. [District Rule 2201]
14. A flame shall be present at all times when combustible gases are vented through this flare. [District Rule 2201]
15. Flare shall be equipped with continuous pilot light or automatic re-ignition provisions. [District Rule 2201]
16. Gas line to flare shall be equipped with operational, volumetric flow rate indicator. [District Rule 2201]
17. Sulfur compound concentration of gas combusted shall not exceed 1.0 gr S/100 scf (16.9 ppmv H₂S). [District Rule 2201]
18. Only natural gas with a sulfur content not exceeding 1.0 gr S/100scf shall be used as pilot fuel. [District Rule 2201]
19. Maximum amount of gas combusted shall not exceed 217 MMBtu/hr. [District Rule 2201]
20. Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NO_x (as NO₂): 0.068 lb/MMBtu; PM₁₀: 0.008 lb/MMBtu; CO: 0.31 lb/MMBtu; or VOC: 0.33 lb/MMBtu. [District Rule 2201]
21. Permittee shall measure sulfur content of gas incinerated in flare within 60 days of startup and at least once every year thereafter. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 2201 and 4801]
22. Permittee shall determine sulfur content of gas flared using ASTM method D3246 or double GC for H₂S and mercaptans. [District Rule 2201]
23. The higher heating value of the flared gas shall be monitored at least quarterly. [District Rules 1070 and 2201]
24. Permittee shall keep accurate records of daily and annual quantity of gas combusted by flare. [District Rule 2201]
25. Permittee shall keep accurate records of date/time of flare use, reason for flare use, and corrective action taken. [District Rule 2201]
26. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201]
27. The permittee shall maintain monthly records of the number of hours of emergency operation. [District Rule 2201]

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28. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4409, 5.1.1]
29. For valves, threaded connections, flanges, pipes, pumps, compressors, and other components not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
30. For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
31. For polished rod stuffing boxes (PRSBs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
32. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.2]
33. Minor gas leaks from PRSBs detected during any District inspection shall not be counted toward determination of compliance with this rule provided the permittee repairs, replaces, or removes leaking PRSBs from VOC service as soon as practicable but not later than seven calendar days. [District Rule 4409, 5.1.3.1.2]
34. Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2]
35. Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3]
36. An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1]
37. A leak from a component is when there is a major liquid leak from the component. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2]
38. A leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3]
39. A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4]
40. When 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]

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41. When 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq 50,000$ ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq 50,000$ ppmv. [District Rule 4409, 5.1.4.4]
42. When 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq 50,000$ ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq 50,000$ ppmv. [District Rule 4409, 5.1.4.4]
43. When 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
44. When compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
45. When 200 or fewer PRSBs are inspected, a leak is when more than four have a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq 50,000$ ppmv. When greater than 200 PRSBs are inspected, a leak is when more than 2.0 % (rounded up to the nearest whole number) of the PRSBs have a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq 50,000$ ppmv. [District Rule 4409, 5.1.4.4]
46. When 200 or fewer wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than two or more pipes have a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq 50,000$ ppmv. When greater than 200 wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than 1.0 % (rounded up to the nearest whole number) of the pipes have a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq 50,000$ ppmv. [District Rule 4409, 5.1.4.4]
47. When pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak $> 10,000$ ppmv and $\leq 50,000$ ppmv. [District Rule 4409, 5.1.4.4]
48. For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1]
49. For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2]
50. All accessible operating pumps, compressors, and PRDs, in service, that are found to be leaking by audio-visual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3]
51. Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4]
52. All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5]
53. All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6]
54. All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7]
55. All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8]
56. All pipes, in service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1]

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57. The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non- Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2]
58. Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10]
59. The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11]
60. A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12]
61. Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13]
62. District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14]
63. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4409, 5.3.1]
64. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5]
65. The operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5]

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66. For each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5]
67. If a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6]
68. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options 1a through 1f require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: 1a) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; 1b) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; 1e) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7]
69. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1]
70. The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2]
71. By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4]

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72. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
73. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
74. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
75. All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rule 4409, 6.2.4]
76. All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rule 4409, 6.3.1]
77. The VOC content by weight percent shall be determined using ASTM D-1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4409, 6.3.2]
78. The percent by volume liquid evaporated at 302 °F (150 °C) shall be determined using ASTM D-86. [District Rule 4409, 6.3.3]
79. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D-323, and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures specified in Appendix A of District Rule 4409. [District Rule 4409, 6.3.4]
80. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM D-287 or ASTM 1298. Sampling for API gravity shall be performed in accordance with ASTM D-4057. [District Rule 4409, 6.3.5]
81. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4409, 6.3.6]
82. Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7]
83. Permittee shall keep accurate records of annual throughput, material usage, or other information necessary to demonstrate that facility emissions are less than 10 tons NO_x/yr and 10 tons VOC/yr for exemption from Rule 4311. [District Rule 4311]

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84. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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