



March 30, 2021

Mr. Juan Campos Elk Hills Power, LLC 4026 Sky Line Road Tupman, CA 93276

Re: Proposed ATC / Certificate of Conformity (Significant Mod)

District Facility # S-9168

Project # 1200348

Dear Mr. Campos:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The Authouities to Construct are to increase the fugitive VOC emission limits for 23 Permits to Operate (PTOs).

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authorities to Construct with Certificates of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

Brian Clements

Director of Permit Services

Enclosures

Courtney Graham, CARB (w/enclosure) via email CC:

Gerardo C. Rios, EPA (w/enclosure) via EPS CC:

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

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Facility Name: Elk Hills Power, LLC Date: 3/25/21

Mailing Address: 4026 Sky Line Road Engineer: David Torii

Tupman, CA 93276

Rich Karrs

Lead Engineer: RWX 3/25/21

Contact Person: Juan Campos Telephone: 661-505-5951

Application #(s): S-9168-1-2 and 22 others

Project #: 1200348
Deemed Complete: 2/7/20

I. Proposal

Elk Hills Power, LLC (EHP) has requested Authority to Construct (ATC) permits for increasing the fugitive VOC emission limits for 23 Permits to Operate (PTOs).

EHP has received their Title V Permit. This modification can be classified as a Title V minor modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. EHP must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (8/15/19)
Rule 2410	Prevention of Significant Deterioration (6/16/11) This rule applies to
	attainment pollutants only. The subject equipment only emits VOC. VOC
	is not an attainment pollutant; therefore, this rule does not apply.
Rule 2520	Federally Mandated Operating Permits (8/15/19)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4409	Component at Light Crude Oil Production Facilities, Natural Gas Production
	Facilities, and Natural Gas Processing Facilities (4/20/05)
CH&SC 41700	Health Risk Assessment

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 units are located in Section 35 Township 30S Range 23E at the Elk Hills 35R Gas Plant. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore,

the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

The affected equipment are part of the EHP natural gas processing plant.

V. Equipment Listing

Pre-Project Equipment Description (see PTOs in Appendix B):

- S-9168-1: INLET GAS SYSTEM WITH ELECTRIC MOTOR DRIVEN INLET GAS COMPRESSOR(S)
- S-9168-2: MERCURY REMOVAL SYSTEM WITH INLET GAS FILTER SEPARATOR, MERCURY GUARD BED
- S-9168-3: INLET GAS TREATING WITH INLET GAS AMINE CONTACTOR, TREATED GAS COOLER, LEAN GLYCOL COOLER, TREATED GAS FILTER SEPARATOR
- S-9168-4: INLET GAS DEHYDRATION WITH MOLECULAR SIEVE DEHYDRATION, DRY GAS DUST FILTER, REGENERATION GAS HEATER, REGENERATION GAS COOLER AND SCRUBBER, AND REGENERATION GAS COOLER
- S-9168-5: NGL RECOVERY WITH EXPANDER/BOOSTER COMPRESSOR, GAS/GAS EXCHANGER, COLD SEPARATOR, DEMETHANIZER REBOILERS, DEMETHANIZER, AND DEETHANIZER FEED PUMPS
- S-9168-6: RESIDUE GAS COMPRESSION WITH ELECTRIC MOTOR DRIVEN RESIDUE GAS COMPRESSOR(S), RESIDUE GAS COALESCER(S)
- S-9168-7: DEETHANIZER WITH REFLUX CONDENSER
- S-9168-8: DEPROPANIZER WITH REFLUX CONDENSERS AND REFLUX DRUMS
- S-9168-9: DEBUTANIZER WITH REFLUX CONDENSERS AND REFLUX DRUMS
- S-9168-10: REFRIGERATION SYSTEM WITH REFRIGERANT SUCTION SCRUBBER, REFRIGERANT COMPRESSOR(S) AND COMPRESSOR COMPONENTS, REFRIGERANT FLASH DRUM, REFRIGERANT CONDENSERS AND COMPONENTS, AND REFRIGERANT SURGE DRUM
- S-9168-11: AMINE SYSTEM WITH AMINE REGENERATION PACKAGE
- S-9168-12: GLYCOL SYSTEM WITH GLYCOL REGENERATION PACKAGE
- S-9168-13: PROPANE TANK (EXEMPT), BUTANE TANK (EXEMPT), AND 16,250 GALLON NATURAL GAS TANK
- S-9168-14: HOT OIL SYSTEM WITH HOT OIL EXPANSION TANK, HOT OIL PUMPS, AND 164 MMBTU/HR HOT OIL HEATER WITH JOHN ZINK C-RMB RAPID MIX ULTRA-LOW NOX BURNER
- S-9168-15: OVERHEAD GAS SYSTEM WITH FUEL GAS SCRUBBER, ETHANE/CO2 GLYCOL CONTACTOR, ETHANE/CO2 COMPRESSOR(S), ETHANE COOLERS AND ETHANE COOLER COMPONENTS
- S-9168-16: METHANOL INJECTION SYSTEM INCLUDING 1,000 GALLON TANK SERVED BY VAPOR CONTROL SYSTEM
- S-9168-17: 2000 GALLON AMINE SUMP TANK
- S-9168-18: 3000 GALLON GLYCOL SUMP TANK
- S-9168-19: 300 BBL AMINE STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM
- S-9168-20: 300 BBL FRESH WATER TANK SERVED BY VAPOR CONTROL SYSTEM
- S-9168-21: 500 BBL PRODUCED WATER STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM
- S-9168-22: 500 BBL SLOP OIL TANK CONNECTED TO EXISTING GAS GATHERING SYSTEM

S-9168-24: O2 REMOVAL SYSTEM WITH 19.5 MMBTU/HR O2 HEATER WITH COEN C-RMB RAPID MIX ULTRA LOW NOX BURNER (OR EQUIVALENT), OXYGEN REMOVAL REACTOR, OXYGEN REMOVAL DISCHARGE COOLER AND SCRUBBER AND O2 REMOVAL COOLER

Proposed ATCs:

- S-9168-1-2: MODIFICATION OF INLET GAS SYSTEM WITH ELECTRIC MOTOR DRIVEN INLET GAS COMPRESSOR(S): INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-2-2: MODIFICATION OF MERCURY REMOVAL SYSTEM WITH INLET GAS FILTER SEPARATOR, MERCURY GUARD BED: REVISE FUGITIVE EMISSION LIMIT AND LEAK REQUIREMENTS
- S-9168-3-2: MODIFICATION OF INLET GAS TREATING WITH INLET GAS AMINE CONTACTOR, TREATED GAS COOLER, LEAN GLYCOL COOLER, TREATED GAS FILTER SEPARATOR: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-4-2: MODIFICATION OF INLET GAS DEHYDRATION WITH MOLECULAR SIEVE DEHYDRATION, DRY GAS DUST FILTER, REGENERATION GAS HEATER, REGENERATION GAS COOLER AND SCRUBBER, AND REGENERATION GAS COOLER: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-5-2: MODIFICATION OF NGL RECOVERY WITH EXPANDER/BOOSTER COMPRESSOR, GAS/GAS EXCHANGER, COLD SEPARATOR, DEMETHANIZER REBOILERS, DEMETHANIZER, AND DEETHANIZER FEED PUMPS: INCREASE FUGITIVE VOC EMISSION LIMITS
- S-9168-6-2: MODIFICATION OF RESIDUE GAS COMPRESSION WITH ELECTRIC MOTOR DRIVEN RESIDUE GAS COMPRESSOR(S), RESIDUE GAS COALESCER(S): INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-7-2: MODIFICATION OF DEETHANIZER WITH REFLUX CONDENSER: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-8-2: MODIFICATION OF DEPROPANIZER WITH REFLUX CONDENSERS AND REFLUX DRUMS: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-9-2: MODIFICATION OF DEBUTANIZER WITH REFLUX CONDENSERS AND REFLUX DRUMS: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-10-2: MODIFICATION OF REFRIGERATION SYSTEM WITH REFRIGERANT SUCTION SCRUBBER, REFRIGERANT COMPRESSOR(S) AND COMPRESSOR COMPONENTS, REFRIGERANT FLASH DRUM, REFRIGERANT CONDENSERS AND COMPONENTS, AND REFRIGERANT SURGE DRUM: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-11-2: MODIFICATION OF AMINE SYSTEM WITH AMINE REGENERATION PACKAGE: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-12-2: MODIFICATION OF GLYCOL SYSTEM WITH GLYCOL REGENERATION PACKAGE: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-13-2: MODIFICATION OF PROPANE TANK (EXEMPT), BUTANE TANK (EXEMPT), AND 16,250 GALLON NATURAL GAS TANK: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-14-2: MODIFICATION OF HOT OIL SYSTEM WITH HOT OIL EXPANSION TANK, HOT OIL PUMPS, AND 164 MMBTU/HR HOT OIL HEATER WITH JOHN ZINK C-RMB RAPID MIX ULTRA-LOW NOX BURNER: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-15-2: MODIFICATION OF OVERHEAD GAS SYSTEM WITH FUEL GAS SCRUBBER, ETHANE/CO2 GLYCOL CONTACTOR, ETHANE/CO2 COMPRESSOR(S),

- ETHANE COOLERS AND ETHANE COOLER COMPONENTS: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-16-2: MODIFICATION OF METHANOL INJECTION SYSTEM INCLUDING 1,000 GALLON TANK SERVED BY VAPOR CONTROL SYSTEM: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-17-2: MODIFICATION OF 2000 GALLON AMINE SUMP TANK: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-18-4: MODIFICATION OF 3000 GALLON GLYCOL SUMP TANK: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-19-2: MODIFICATION OF 300 BBL AMINE STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-20-2: MODIFICATION OF 300 BBL FRESH WATER TANK SERVED BY VAPOR CONTROL SYSTEM: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-21-2: MODIFICATION OF 500 BBL PRODUCED WATER STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-22-2: MODIFICATION OF 500 BBL SLOP OIL TANK CONNECTED TO EXISTING GAS GATHERING SYSTEM: INCREASE FUGITIVE VOC EMISSION LIMIT
- S-9168-24-2: MODIFICATION OF O2 REMOVAL SYSTEM WITH 19.5 MMBTU/HR O2 HEATER WITH COEN C-RMB RAPID MIX ULTRA LOW NOX BURNER (OR EQUIVALENT), OXYGEN REMOVAL REACTOR, OXYGEN REMOVAL DISCHARGE COOLER AND SCRUBBER AND O2 REMOVAL COOLER: INCREASE FUGITIVE VOC EMISSION LIMIT

Post-Project Equipment Description:

- S-9168-1: INLET GAS SYSTEM WITH ELECTRIC MOTOR DRIVEN INLET GAS COMPRESSOR(S)
- S-9168-2: MERCURY REMOVAL SYSTEM WITH INLET GAS FILTER SEPARATOR, MERCURY GUARD BED
- S-9168-3: INLET GAS TREATING WITH INLET GAS AMINE CONTACTOR, TREATED GAS COOLER, LEAN GLYCOL COOLER, TREATED GAS FILTER SEPARATOR
- S-9168-4: INLET GAS DEHYDRATION WITH MOLECULAR SIEVE DEHYDRATION, DRY GAS DUST FILTER, REGENERATION GAS HEATER, REGENERATION GAS COOLER AND SCRUBBER, AND REGENERATION GAS COOLER
- S-9168-5: NGL RECOVERY WITH EXPANDER/BOOSTER COMPRESSOR, GAS/GAS EXCHANGER, COLD SEPARATOR, DEMETHANIZER REBOILERS, DEMETHANIZER, AND DEETHANIZER FEED PUMPS
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- S-9168-10: REFRIGERATION SYSTEM WITH REFRIGERANT SUCTION SCRUBBER, REFRIGERANT COMPRESSOR(S) AND COMPRESSOR COMPONENTS, REFRIGERANT FLASH DRUM, REFRIGERANT CONDENSERS AND COMPONENTS. AND REFRIGERANT SURGE DRUM
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VI. Emission Control Technology Evaluation

All emissions units are controlled by vapor collection and control technology or designed to prevent release of liquids or vapors to atmosphere. All components handling crude oil and gas are subject to the leak detection and repair (LDAR) requirements of SJVUAPCD Rule 4409. A LDAR program exists at the facilities and ensures inspections and repairs are conducted as prescribed by the permits and Rule 4409.

Fugitive Emissions BACT Requirement

As described below BACT is triggered for several of the permits. BACT is a leak definition of (3) drops per minute of liquid containing VOC or a reading of methane in excess of 100 ppmv (valves and connectors) and 500 ppmv (compressor and pump seals) and an Inspection and Maintenance Program (I&M) pursuant to District Rule 4409 (BACT Requirement).

VII. General Calculations

A. Assumptions

- Facility operates 24 hr/day 365 days per year.
- This project only results in a fugitive VOC emissions change; therefore, combustion emissions are not addressed.
- The permits' fugitive VOC increase results from an increase in percentage of allowable leaking components and an increase in non-condensable vapor VOC concentration.

Post Project VOC Concentration Limits				
Permit unit	% VOC	Sample Location		
'-1 Inlet Gas System	35	Inlet Gas		
'-2 Mercury Removal System	35	Inlet Gas		
'-3 Inlet Gas Treating	35	Inlet Gas		
'-4 Inlet Gas Dehydration	35	Inlet Gas		
'-5 NGL Recovery	35	Dry Gas to Cryo		
'-6 Residue Gas Compression	5	Residue Gas		
'-7 Deethanizer	100	Not Applicable		
'-8 Depropanizer	100	Not Applicable		
'-9 Debutanizer	100	Not Applicable		
'-10 Refrigeration System	100	Not Applicable		
'-11 Amine System	35	Amine Inlet		
'-12 Glycol Regeneration	35	Inlet Gas		
'-13 Propane, Butane, Natural	100	Not Applicable		
Gas Storage				
'-14 Hot Oil System	100	Not Applicable		
'-15 Overhead Gas System and	18	Ethane/Co2 Overhead		
Overhead Gas Scrubber				
'-16 Methanol Injection System	100	Not Applicable		
'-17 Amine Sump	35	Amine Inlet		
'-18 Glycol Sump	35	Inlet Gas		
'-19 Amine Tank	37	CGP Amine Inlet		
'-20 Water Tank	35	CGP Inlet Gas		
'-21 Produced Water Tank	35	CGP Inlet Gas		
'-22 Slop Oil Tank	35	CGP Inlet Gas		
'-24 O2 Removal System	35	Inlet Gas		

B. Emission Factors

Pre and post project emissions are calculated using "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors."

C. Calculations

1. Pre-Project Potential to Emit (PE1

PE1					
Pollutant	Daily Emissions (lb/day)*	Annual Emissions (lb/year)			
S-9168-1	7.0	2,555			
S-9168-2	1.8	657			
S-9168-3	2.7	986			
S-9168-4	2.6	949			
S-9168-5	2.9	1,059			
S-9168-6	0.3	110			
S-9168-7	2.6	949			
S-9168-8	12.2	4,453			
S-9168-9	11.8	4,307			
S-9168-10	21.6	7,884			
S-9168-11	2.4	876			
S-9168-12	2.6	949			
S-9168-13	26.2	9,563			
S-9168-14	11.7	4,271			
S-9168-15	2.1	767			
S-9168-16	15.1	5,512			
S-9168-17	0.8	292			
S-9168-18	0.9	328			
S-9168-19	1.4	511			
S-9168-20	1.7	621			
S-9168-21	1.7	621			
S-9168-22	1.5	548			
S-9168-24	2.6	949			
PE1	136.2	49,717			

^{*}From PTOs

2. Post-Project Potential to Emit (PE2)

PE2*						
Pollutant	Daily Emissions (lb/day)	Annual Emissions (lb/year)				
S-9168-1	18.4	6,716				
S-9168-2	5.2	1,898				
S-9168-3	7.2	2,628				
S-9168-4	7.0	2,555				
S-9168-5	9.7	3,541				
S-9168-6	1.0	365				
S-9168-7	12.2	4,453				
S-9168-8	22.3	8,140				
S-9168-9	20.5	7,483				
S-9168-10	33.5	12,228				
S-9168-11	7.0	2,555				
S-9168-12	7.1	2,592				
S-9168-13	34.9	12,739				
S-9168-14	20.3	7,410				
S-9168-15	5.0	1,825				
S-9168-16	17.5	6,388				
S-9168-17	6.1	2,227				
S-9168-18	6.2	2,263				
S-9168-19	6.5	2,373				
S-9168-20	3.7	1,351				
S-9168-21	3.7	1,351				
S-9168-22	9.2	3,358				
S-9168-24	4.8	1,752				
PE2	269.0	98,191				

^{*}See Emission calculations in Appendix C

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.

Facility emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE1 calculations are not necessary.

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.

Since facility emissions are already above the Offset and Major Source Thresholds for VOC emissions, SSPE2 calculations are not necessary.

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

This source is an existing Major Source for VOC emissions and will remain a Major Source for VOC. No change in other pollutants are proposed or expected as a result of this project.

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.

Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

The subject permits units satisfy Achieved-in-Practice BACT Guideline 7.2.1 for Natural Gas Processing Plant - Valves, Connectors, and Compressor and Pump Seals (Subject to Rule 4409) \leq 100 MMscf/day. Therefore BE = PE1.

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 source is not included in the 28 specific source categories specified in 40 CFR 51.165, the, increases in fugitive emissions are not included in the SB 288 Major Modification calculation.

Since this facility is a major source for all pollutants, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds							
Pollutant Project PE2 (lb/year) Threshold (lb/year) SB 288 Major Modification Calculation Required?							
NO _x	NA	50,000	N				
SO _x	NA	80,000	N				
PM ₁₀	NA	30,000	N				
VOC	0	50,000	N				

Since none of the SB 288 Major Modification Thresholds are surpassed with 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 source (a gas processing plant) is not included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions are not included in the Federal Major Modification determination; therefore, this project does not constitute a Federal Major Modification 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. Detailed QNEC calculations are included in Appendix A.

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

Pursuant to District Rule 2201, Section 4.1, 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*:

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. 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 Adjusted Increase in Permitted Emissions (AIPE) exceeding two pounds per day, and/or
- d. 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.

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

As discussed in Section I above, there are no new emissions units associated with this project. Therefore BACT for new units with PE > 2 lb/day purposes 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 modified emissions units associated with this project with an AIPE is greater than 2.0 lb/day. Therefore, BACT is triggered.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does not constitute an SB 288 and/or Federal Major Modification for any pollutant. Therefore BACT is not triggered for any pollutant.

2. BACT Guideline

BACT Guideline 7.2.7, applies to the unit's fugitive VOC components. [Natural Gas Processing Plant - Valves, Connectors, and Compressor and Pump Seals (Subject to Rule 4403) < or = 100 Million SCF/Day] (See Appendix D)

^{*}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.

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 **Appendix D**), BACT has been satisfied with the following:

VOC: Leak defined as a dripping rate of more than three (3) drops per minute of liquid containing VOC or as a reading of methane, in excess of 100 ppmv above background (for valves and connectors) and; 500 ppmv (for Compressors and Pump Seals) when measured as per EPA Method 21 from the potential source, and an Inspection and Maintenance Program pursuant to District Rule 4409.

B. Offsets

1. Offset Applicability

Pursuant to District Rule 2201, Section 4.5, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals 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 NA NA NA NA >20,000								
Offset Thresholds 20,000 54,750 29,200 200,000 20,000								
Offsets triggered?	No	No	No	No	Yes			

2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for VOC only. Therefore offset calculations will be required for this project.

The quantity of offsets in pounds per year for VOC is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$, for all new or modified emissions units in the project,

Where,

PE2 = Post-Project Potential to Emit, (lb/year)

BE = Baseline Emissions, (lb/year)

ICCE = Increase in Cargo Carrier Emissions, (lb/year)

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

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 = HAE

There are 23 emissions unit associated with this project and there are no increases in cargo carrier emissions; therefore offsets can be determined as follows:

Offsets Required (lb/year) = $(\sum [PE2 - BE] + ICCE) \times DOR$

PE2 = 98,191 lb/year BE = 49,717 lb/year ICCE = 0 lb/year

The subject equipment is located in the same stationary source as the ERC's emission reduction; therefore, the correct offset ratio is 1.0:1.0.

At an offset ratio of 1.0:1.0, the amount of ERCs that need to be withdrawn is:

```
Offsets Required (lb/year) = ([98,191 - 49,717] + 0) \times 1.0
= 48,474 lb VOC/year
```

Calculating the appropriate quarterly emissions to be offset is as follows:

```
Quarterly offsets required (lb/qtr) = (48,474 lb /year) ÷ (4 quarters/year) = 12,118.5 lb/qtr
```

As shown in the calculation above, the quarterly amount of offsets required for this project, when evenly distributed to each quarter, results in fractional pounds of offsets being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

Redistribution of Required Quarterly Offsets (where X is the annual amount of offsets, and $X \div 4 = Y.z$)							
Value of z Quarter 1 Quarter 2 Quarter 3 Quarter 4							
.0) Y Y Y Y						
.25 Y Y Y Y+1							
.5 Y Y Y+1 Y+1							
.75	Y	Y+1	Y+1	Y+1			

Therefore the appropriate quarterly emissions to be offset are as follows:

1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Total Annual
12,118	12,118	12,119	12,119	48,474

The applicant has stated that the facility plans to use ERC certificate S-3951-1 to offset the increases in VOC emissions associated with this project. The above certificate has available quarterly VOC credits as follows:

As seen above, the facility has sufficient credits to fully offset the quarterly VOC emissions increases associated with this project.

Proposed Rule 2201 (offset) Conditions:

The below conditions will be placed on ATC S-9168-1-2; implementation of ATC S-9168-1-2 will be required prior to or concurrently this project's other ATCs.

- {GC# 4447 edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter 12,118 lb, 2nd quarter 12,118 lb, 3rd quarter 12,119 lb, and 4th quarter 12,119 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 2/18/16) for the ERC specified below. [District Rule 2201]
- ERC Certificate Number S-3951-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

3. ERC Withdrawal Calculations

The applicant must identify the ERC Certificate(s) to be used to offset the increase of VOC emissions for the project. As indicated in previous section, the applicant is proposing to use ERC certificate #S-3951-1 to mitigate the increases of VOC emissions associated with this project. See **Appendix E** for detailed ERC Withdrawal Calculations.

C. Public Notification

1. Applicability

Pursuant to District Rule 2201, Section 5.4, public noticing is required for:

- a. 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,
- c. Any project which results in the offset thresholds being surpassed,
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant, and/or
- e. 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. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in Sections VII.C.7 and VII.C.8, this project does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not required.

b. PE > 100 lb/day

There are no new emissions proposed in this project, therefore, public noticing in not required for a new emissions unit with greater than 100 lb/day increase of any affected pollutant.

c. Offset Threshold

Public notification is required if the pre-project Stationary Source Potential to Emit (SSPE1) is increased to a level exceeding the offset threshold levels. The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Thresholds								
Pollutant	ant SSPE1 SSPE2 Offset Publication (lb/year) (lb/year) Threshold Rec							
NO _X	>20,000 lb/year	>20,000 lb/year	20,000 lb/year	N				
SO _X	>54,750 lb/year	>54,750 lb/year	54,750 lb/year	N				
PM ₁₀	>29,200 lb/year	>29,200 lb/year	29,200 lb/year	N				
CO	>200,000 lb/year	>200,000 lb/year	200,000 lb/year	N				
VOC	>20,000 lb/year	>20,000 lb/year	20,000 lb/year	N				

As demonstrated 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	utant PE2 PE1 SSIPE SSIPE Public (lb/year) (lb/year) Notice Threshold						
NO _x			0	20,000 lb/year	N		
SO _x			0	20,000 lb/year	N		
PM ₁₀			0	20,000 lb/year	N		
СО			0	20,000 lb/year	N		
VOC	98,191	49,717	47,592	20,000 lb/year	Y		

As demonstrated above, the SSIPE for VOC exceeds 20,000 lb/year; therefore public noticing for SSIPE purposes is required.

e. Title V Significant Permit Modification

As shown in the Discussion of Rule 2520 below, this project does not constitute a Title V significant modification. Therefore, public noticing for Title V significant modifications is not required for this project.

2. Public Notice Action

As discussed above, public noticing is required for this project for SSIPE of VOC emissions in excess of 20,000 lb/year. Therefore, the District will prepare and submit public notice documents to the California Air Resources Board (CARB) and will electronically publish a public notice on the District's website 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.

The ATC's DELs are stated in the form of fugitive screening value emissions factors, a non-condensable vapors VOC concentration limit and the resulting lb.-VOC/day emission limit as show below. Note that for units with a 100% VOC concentration limit, no VOC concentration limit will be listed on the permit.

Proposed Rule 2201 (DEL) Conditions:

Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Y

VOC fugitive emissions from the components in gas service shall not exceed 18.4 lb/day. [District Rule 2201] Y

VOC content of the non-condensable vapors shall not exceed 35% by weight. [District Rule 2201] Y

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 subject permits have the following condition:

Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Y

Permits with a VOC concentration limit are required to demonstrate compliance with the limit annually.

The project results in no change in monitoring requirements for combustion equipment.

3. Recordkeeping

The following condition will be listed on the permits as follows:

{2983} All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

The following permit condition will be listed on permit as follows: {2983} All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320]

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit.

In accordance with Rule 2520, Minor Permit Modifications are permit modifications that:

- 1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
- 2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
- 3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
- 4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
 - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
- 5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
- 6. Do not seek to consolidate overlapping applicable requirements;
- 7. Do not grant or modify a permit shield.

Additionally, Section 11.4 requires a description of the proposed change, the emissions resulting from the change, any new applicable requirements that will apply if the change occurs, suggested draft permits, compliance certification and an EPA 45-day review period of the proposed permit modification (or a shorter period if EPA has notified the District that EPA will not object to issuance of the permit modification, whichever is first).

As discussed above, the facility has applied for a Certificate of Conformity (COC) and the District will forward to EPA, for a 45-day review period, this application review which includes the proposed modified Title V permit [i.e. proposed ATC(s)] and the compliance certification form which demonstrates compliance with the minor permit modification requirements in Section 11.4. Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V application.

Rule 4001 New Source Performance Standards (NSPS)

40 CFR Part 60, Subpart Kb: Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

Pursuant to 40 CFR Part 60 Section 60.110b(a), *Applicability And Designation Of Affected Facility*, except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a <u>capacity greater than or equal to 75 cubic meters</u> (m³) (equivalent to 19,813 gal, 472 bbls) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

Pursuant to 40 CFR Part 60 Section 60.110b(b), this subpart does not apply to:

- (a) storage vessels with a capacity greater than or equal to 151 m³ (equivalent to 39,890 gal, 950 bbls) storing a liquid with a maximum True Vapor Pressure (TVP) less than 3.5 kilopascals (kPa) (equivalent to 0.5 psi) or
- (b) with a capacity greater than or equal to 75 m³ (equivalent to 19,813 gal, 472 bbls) but less than 151 m³ (equivalent to 39,890 gal, 950 bbls) storing a liquid with a maximum true vapor pressure less than 15.0 kPa (equivalent to 2.2 psi).

Permit Units	Tank Capacity (gal)	TVP (psia)	TVP Thresholds (psia)
S-9168-13 NGL Tank	16,250 gallons	Na	Exempt
S-9168-17 Amine Sump	2,000 gallons	Na	Exempt
S-9168-18 Glycol Sump	3,000 gallons	Na	Exempt
S-9168-19 Amine Storage Tank	300 bbls	Na	Exempt
S-9168-20 Fresh Water Tank	300 bbls	Na	Exempt
S-9168-21 Produced Water Tank	500 bbls	<0.5	2.2
S-9168-22 Slop Oil Tank	500 bbls	< 0.5	2.2

The NGL tank, Amine Sump, Glycol Sump, Amine Storage Tank, and Fresh Water Tank are less than 19,813 gallons (472 bbls) in capacity and are therefore exempt from the requirements of 40 CFR Part 60, Subpart Kb.

The produced water and slop oil tanks exceed 19,813 gallons in capacity and therefore the following permit condition is applied (for exemption from the 40 CFR Part 60, Subpart Kb NSPS requirements):

The True Vapor Pressure (TVP) of liquid introduced, placed, processed or stored in the tank shall be less than 0.5 psi. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]

Subpart KKK—Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants.

40 CFR Part 60, Subpart KKK (40 CFR 60.630 to 60.636) applies to onshore natural gas processing plants. These general requirements and those of 40 CFR Subpart VV, establish leak standards for each category of component (valves, flanges, pressure relief valves etc.) and specify procedures and timelines for repairing leaks. The following condition is included on the ATCs:

Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK and District Rule 4409] N

Note that tanks are not subject to 40 CFR KKK because they are not part of a process unit and not used for the extraction of natural gas liquids. Compliance is expected.

Rule 4101 Visible Emissions

Per Section 5.0, no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). As the IC engine, O2 removal heater, and hot oil heater are fired solely on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Compliance is expected.

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. 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 one. According to the Technical Services Memo for this project (**Appendix F**), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
1-2 through 24-2	0.25	0.01 ¹	0.00 ¹	9.21E-08 ¹	No	No
Project Totals	0.25	0.01	0.00	9.21E-08		
Facility Totals	>1	0.25^{2}	0.02^{2}	3.01E-06 ²		

Notes:

- 1. Modeling for this project utilized District Policy APR 1965 Aggregrate Methodology.
- Facility Totals reflect combined risk from facilities S-9168 and S-2234. Facilities S-9168 and S-2234 constitute as one stationary source.

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.

The subject units currently comply with this rule and the proposed modification is not expected to affect compliance.

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

The facility is subject to this rule's requirements which are listed in the facility wide PTO. Continued 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 currently comply with this rule and the proposed modification is not expected to affect compliance; continued compliance is expected.

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)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

Oil and gas operations in Kern County must comply with the Kern County Zoning Ordinance – 2015 (C) Focused on Oil and Gas Local Permitting. In 2015, Kern County revised the Kern County Zoning Ordinance Focused on Oil and Gas Activities (Kern Oil and Gas Zoning Ordinance) in regards to future oil and gas exploration, and drilling and production of hydrocarbon resource projects occurring within Kern County.

Kern County served as lead agency for the revision to their ordinance under the California Environmental Quality Act (CEQA), and prepared an Environmental Impact Report (EIR) that was certified on November 9, 2015. The EIR evaluated and disclosed to the public the environmental impacts associated with the growth of oil and gas exploration in Kern County, and determined that such growth will result in significant GHG impacts in the San Joaquin Valley. As such, the EIR included mitigation measures for GHG.

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), (CEQA Guidelines §15381). As a Responsible Agency, the District is limited to mitigating or avoiding impacts for which it has statutory authority. The District does not have statutory authority for regulating GHGs. The District has determined that the applicant is responsible for implementing GHG mitigation measures imposed in the EIR by the Kern County for the Kern County Zoning Ordinance.

District CEQA Findings

The proposed project is located in Kern County. It was approved by Kern County under its permitting process prior to March 25, 2020 and is thus subject to the Kern County Zoning Ordinance – 2015 (C) Focused on Oil and Gas Local Permitting. The Kern County Zoning Ordinance was developed by the Kern County Planning Agency as a comprehensive set of goals, objectives, policies, and standards to guide development, expansion, and operation of oil and gas exploration within Kern County.

In 2015, Kern County revised their Kern County Zoning Ordinance in regards to exploration, drilling and production of hydrocarbon resources projects. Kern County, as the lead agency, is the agency that will enforce the mitigation measures identified in the EIR, including the mitigation requirements of the Oil and Gas ERA. As a responsible agency the District complies with CEQA by considering the EIR prepared by the Lead Agency, and by reaching its own conclusion on whether and how to approve the project involved (CCR §15096). The District has reviewed the EIR prepared by Kern County, the Lead Agency for the project, and finds it to be adequate. The District also prepared a full findings document. The full findings document, California Environmental Quality Act (CEQA) Statement of Findings for the Kern County Zoning Ordinance EIR contains the details of the District's findings regarding the Project. The District's implementation of the Kern Zoning Ordinance and its EIR applies to ATC applications received for any new/modified equipment used in oil/gas production in Kern County, including new wells, between November 5, 2015 and March 25, 2020. The full findings applies to the Project and the Project's related activity equipment(s) is covered under the Kern Zoning Ordinance. To reduce project related impacts on air quality, the District evaluates emission controls for the project such as Best Available Control Technology (BACT) under District Rule 2201 (New and Modified Stationary Source Review). In addition, the District is requiring the applicant to surrender emission reduction credits (ERC) for stationary source emissions above the offset threshold.

Thus, the District concludes that through a combination of project design elements, permit conditions, and the Oil and Gas ERA, the project will be fully mitigated to result in no net increase in emissions. Pursuant to CCR §15096, prior to project approval and issuance of ATCs the District prepared findings.

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 revision to the *Kern County Zoning Ordinance* went through an extensive public process that included a Notice of Preparation, a preparation of an EIR, scoping meetings, and public hearings. The process led to the certification of the final EIR and approval of the revised *Kern County Zoning Ordinance* in November 2015 by the Kern County Board of Supervisors. As mentioned above, the proposed project will be fully mitigated and will result in no net increase in emissions. In addition, the proposed project is not located at a facility of concern; 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. Pending a successful NSR Public Noticing period, issue the ATCs subject to the permit conditions on the attached draft ATC in **Appendix G**.

Appendixes

- A: Quarterly Net Emissions Change
- B: Current PTO(s)
- C: PE2 Calculations
- D: BACT Guideline and BACT Analysis
- E: ERC Withdrawal Calculations
- F: HRA Summary
- G: Draft ATC

APPENDIX A Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.

PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.

PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

Using the values in Sections VII.C.2 and VII.C.6 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

PE2quarterly = PE2annual ÷ 4 quarters/year

PE1_{quarterly}= PE1_{annual} ÷ 4 quarters/year

Quarterly NEC [QNEC]					
	PE2 (lb-VOC/yr)	PE2 (lb-VOC/qtr)	PE1 (lb-VOC/yr)	PE1 (lb-VOC/qtr)	QNEC (lb- VOC/qtr)
S-9168-1	6,716	1,679	2,555	639	1,040
S-9168-2	1,898	475	657	164	310
S-9168-3	2,628	657	986	247	411
S-9168-4	2,555	639	949	237	402
S-9168-5	3,541	885	1,059	265	621
S-9168-6	365	91	110	28	64
S-9168-7	4,453	1,113	949	237	876
S-9168-8	8,140	2,035	4,453	1,113	922
S-9168-9	7,483	1,871	4,307	1,077	794
S-9168-10	12,228	3,057	7,884	1,971	1,086
S-9168-11	2,555	639	876	219	420
S-9168-12	2,592	648	949	237	411
S-9168-13	12,739	3,185	9,563	2,391	794
S-9168-14	7,410	1,853	4,271	1,068	785
S-9168-15	1,825	456	767	192	265
S-9168-16	6,388	1,597	5,512	1,378	219
S-9168-17	2,227	557	292	73	484
S-9168-18	2,263	566	328	82	484
S-9168-19	2,373	593	511	128	466
S-9168-20	1,351	338	621	155	183
S-9168-21	1,351	338	621	155	183
S-9168-22	3,358	840	548	137	703
S-9168-24	1,752	438	949	237	201

APPENDIX B Current PTOs

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-9168-1-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

INLET GAS SYSTEM WITH ELECTRIC MOTOR DRIVEN INLET GAS COMPRESSOR(S)

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed timeframes under District Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 7.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 23% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC

Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-1-1: Jan 27 2021 8:59AM - TORIO

Permit Unit Requirements for S-9168-1-1 (continued)

Page 2 of 2

- 11. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 12. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC

Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA S-9168-1-1: Jan 27 2021 8:59AM - TORID

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-9168-2-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

MERCURY REMOVAL SYSTEM WITH INLET GAS FILTER SEPARATOR, MERCURY GUARD BED

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 1.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 23% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC

Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA

S-9168-2-1: Jan 27 2021 8:59AM – TORID

Permit Unit Requirements for S-9168-2-1 (continued)

Page 2 of 2

- 11. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 12. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-9168-3-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

INLET GAS TREATING WITH INLET GAS AMINE CONTACTOR, TREATED GAS COOLER, LEAN GLYCOL COOLER,

TREATED GAS FILTER SEPARATOR

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- 5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 2.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 23% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9165-31: Jan 27 2021 8594M-T0RID

Permit Unit Requirements for S-9168-3-1 (continued)

Page 2 of 2

- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-31: Jan 27 2021 8:59AM – TORIO

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-9168-4-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

INLET GAS DEHYDRATION WITH MOLECULAR SIEVE DEHYDRATION, DRY GAS DUST FILTER, REGENERATION GAS HEATER, REGENERATION GAS COOLER AND SCRUBBER, AND REGENERATION GAS COOLER

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 2.6 lb/day. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 23 % by weight. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA S-9168-4-1. Jan 27 2021 8:99AM - TORIO

Permit Unit Requirements for S-9168-4-1 (continued)

Page 2 of 2

- 11. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 12. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 991684-1: Jan 27 2021 859AM – TORID

PERMIT UNIT: S-9168-5-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

NGL RECOVERY WITH EXPANDER/BOOSTER COMPRESSOR, GAS/GAS EXCHANGER, COLD SEPARATOR, DEMETHANIZER REBOILERS, DEMETHANIZER, AND DEETHANIZER FEED PUMPS

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 2.9 lb/day. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 23% by weight. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-5-1: Jan 27 2021 8:59AM – TORID Permit Unit Requirements for S-9168-5-1 (continued)

Page 2 of 2

- 11. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 12. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-51: Jan 27 2021 8:59AM - TORID

PERMIT UNIT: S-9168-6-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

RESIDUE GAS COMPRESSION WITH ELECTRIC MOTOR DRIVEN RESIDUE GAS COMPRESSOR(S), RESIDUE GAS COALESCER(S)

PERMIT UNIT REQUIREMENTS

- 1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
- 5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. VOC content of the non-condensable vapors shall not exceed 5.0% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA S-9168-6-1; Jan 27 2021 8:59AM - TORID

Permit Unit Requirements for S-9168-6-1 (continued)

Page 2 of 2

- 11. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 12. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

PERMIT UNIT: S-9168-7-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

DEETHANIZER WITH REFLUX CONDENSER

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 2.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 74% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-7-1: Jan 27 2021 859AM – TORIO Permit Unit Requirements for S-9168-7-1 (continued)

Page 2 of 2

- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA S-9168-7-1: Jan 27 2021 8:59AM – TORIO

PERMIT UNIT: S-9168-8-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

DEPROPANIZER WITH REFLUX CONDENSERS AND REFLUX DRUMS

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 12.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 3-9168-8-1: Jan 27 2021 8:59AM - TORID

Permit Unit Requirements fo	r S-9168-8-1 ((continued)
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Page 2 of 2

11. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-8-1: Jan 27 2021 8:59AM – TORIO

PERMIT UNIT: S-9168-9-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

DEBUTANIZER WITH REFLUX CONDENSERS AND REFLUX DRUMS

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- 4. This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- 5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- 7. VOC fugitive emissions from the components in gas service shall not exceed 11.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 9. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC

Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-9-1: Jan 27 2021 8:59AM – TORIO

PERMIT UNIT: S-9168-10-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

REFRIGERATION SYSTEM WITH REFRIGERANT SUCTION SCRUBBER, REFRIGERANT COMPRESSOR(S) AND COMPRESSOR COMPONENTS, REFRIGERANT FLASH DRUM, REFRIGERANT CONDENSERS AND COMPONENTS, AND REFRIGERANT SURGE DRUM

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 21.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409 Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC

Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-10-1: Jan 27 2021 8:59AM - TORID

PERMIT UNIT: S-9168-11-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

AMINE SYSTEM WITH AMINE REGENERATION PACKAGE

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 2.4 lb/day. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 21% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC
Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA
59165-11-1 Jan 27 2021 8594M-T0RID

PERMIT UNIT: S-9168-12-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

GLYCOL SYSTEM WITH GLYCOL REGENERATION PACKAGE

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 2.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 23% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- 10. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 11. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA

Location: 35R GAS PLA S-9168-12-1: Jan 27 2021 9:00AM - TORID

PERMIT UNIT: S-9168-13-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PROPANE TANK (EXEMPT), BUTANE TANK (EXEMPT), AND 16,250 GALLON NATURAL GAS TANK

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Natural gasoline (NGL) storage tank and all piping, valves, and fittings shall be constructed and maintained in a leakfree condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 3. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 26.2 lb/day. [District Rule 2201]
 Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC

Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA

Location: 35R GAS PLA S-9168-13-1: Jan 27 2021 9:00AM - TORID

PERMIT UNIT: S-9168-14-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

HOT OIL SYSTEM WITH HOT OIL EXPANSION TANK, HOT OIL PUMPS, AND 164 MMBTU/HR HOT OIL HEATER WITH JOHN ZINK C-RMB RAPID MIX ULTRA-LOW NOX BURNER

PERMIT UNIT REQUIREMENTS

- Particulate matter emissions shall not exceed 0.1 grains/dsef in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 4. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 5. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service on tank shall not exceed 11.7 lb/day. [District Rule 2201]
 Federally Enforceable Through Title V Permit
- Hot oil heater shall only be fired on PUC-quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
- Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5 ppmvd NOx @ 3% O2 or 0.0062 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 100 ppmvd CO @ 3% O2 or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC
Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA

Location: 35R GAS PLA S-9168-14-1: Jan 27 2021 9:00AM – TORID Permit Unit Requirements for S-9168-14-1 (continued)

Page 2 of 3

- 9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 10. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of startup and at least once every twelve (12) months thereafter. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 11. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 13. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
 Federally Enforceable Through Title V Permit
- 18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 99169-14-1 Jan 27 2021 1000MH-T0RID

Permit Unit Requirements for S-9168-14-1 (continued)

Page 3 of 3

- 20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 23. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-141: Jan 27 2021 9:00AM - TORID

PERMIT UNIT: S-9168-15-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

OVERHEAD GAS SYSTEM WITH FUEL GAS SCRUBBER, ETHANE/CO2 GLYCOL CONTACTOR, ETHANE/CO2 COMPRESSOR(S), ETHANE COOLERS AND ETHANE COOLER COMPONENTS

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 5. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 2.1 lb/day. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 18 % by weight. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9169-15-1 Jan 27 2021 90004M - TORIO Permit Unit Requirements for S-9168-15-1 (continued)

Page 2 of 2

- 11. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 12. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-15-1: Jan 27 2021 9:00AM - TORID

PERMIT UNIT: S-9168-16-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

METHANOL INJECTION SYSTEM INCLUDING 1,000 GALLON TANK SERVED BY VAPOR CONTROL SYSTEM

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank. The vapors shall be discharged to the gas plant's vacuum system. [District Rule 2201] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rule 2201] Federally Enforceable Through Title V Permit
- 5. This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- 6. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from components shall not exceed 15.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 10. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9166-16-1: Jan 27 2021 9:00AN - TORID

PERMIT UNIT: S-9168-17-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION: 2000 GALLON AMINE SUMP TANK

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
- BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 0.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 21% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-17-1: Jan 27 2021 9:00AN - TORID

Permit Unit Requirements for S-9168-17-1 (continued)

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- 11. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409 Federally Enforceable Through Title V Permit
- 12. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC

Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA S-9168-17-1: Jan 27 2021 9:00AM - TORID

PERMIT UNIT: S-9168-18-3 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: R23E

EQUIPMENT DESCRIPTION: 3000 GALLON GLYCOL SUMP TANK

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
- The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
- 3. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 4. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rule 2201] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 8. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC
Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA
9-9168-18-3: Jan 27 2021 9:00AM - TORID

Permit Unit Requirements for S-9168-18-3 (continued)

Page 2 of 2

- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 0.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 23% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- 14. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- Monthly average daily throughput shall not exceed 197 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- True Vapor Pressure (TVP) of any organic liquid introduced to or stored in the sump shall not exceed 1.9 psia.
 [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 17. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2201 and 4623] Federally Enforceable Through Title V Permit
- 18. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 19. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 20. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products. [District Rule 4623] Federally Enforceable Through Title V Permit
- 21. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- The permittee shall maintain monthly records of the tank throughput and TVP of the organic liquid introduced or stored in the sump. [District Rule 1070] Federally Enforceable Through Title V Permit
- 23. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-18-3: Jan 27 2021 9:00AM - TORID

PERMIT UNIT: S-9168-19-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

300 BBL AMINE STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using
 screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass
 Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak
 Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection
 period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 4. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service on tank shall not exceed 1.4 lb/day. [District Rule 2201]
 Federally Enforceable Through Title V Permit
- VOC content of the non-condensable TVR vapors shall not exceed 37% by weight. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable TVR vapors no less than annually.
 [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA -453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
- Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-19-1: Jan 27 2021 9:00AM - TORID Permit Unit Requirements for S-9168-19-1 (continued)

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- 11. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 12. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. 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 the 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 Federally Enforceable Through Title V Permit
- 14. 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] Federally Enforceable Through Title V Permit
- 15. 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 18. Upon detection of a gas leak, defined as a VOC concentration of greater than 2,000 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit

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

Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9166-19-1: Jan 27 2021 900AM-TORIO

Facility Name: ELK HILLS POWER LLC

Permit Unit Requirements for S-9168-19-1 (continued)

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- 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] Federally Enforceable Through Title V Permit
- 22. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9166-19-1-Jan 27 2021 9:00AM - TORID

PERMIT UNIT: S-9168-20-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

300 BBL FRESH WATER TANK SERVED BY VAPOR CONTROL SYSTEM

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
- A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 1.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 23 % by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK and District Rule 4409] Federally Enforceable Through Title V Permit
- 10. Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 11. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 5-9165-201: Jan 27 2021 901AM - TORIO

Permit Unit Requirements for S-9168-20-1 (continued)

Page 2 of 2

- 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 the 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 Federally Enforceable Through Title V Permit
- 13. 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 Federally Enforceable Through Title V Permit
- 14. 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title
- 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] Federally Enforceable Through Title V Permit
- 17. Upon detection of a gas leak, defined as a VOC concentration of greater than 2,000 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 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]

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC

Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-201: Jan 27 2021 9:01AM - TORIO

PERMIT UNIT: S-9168-21-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

500 BBL PRODUCED WATER STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rule 2201] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
- A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 1.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 23% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- 10. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK and District Rule 4409] Federally Enforceable Through Title V Permit
- 11. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC

Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA S-9166-21-1: Jan 27 2021 9:01AM - TORID

Permit Unit Requirements for S-9168-21-1 (continued)

Page 2 of 2

- 12. 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 the 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 2201and 4623] Federally Enforceable Through Title V Permit
- 13. 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] Federally Enforceable Through Title V Permit
- 14. 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 17. Upon detection of a gas leak, defined as a VOC concentration of greater than 2,000 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 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]

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC
Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA
9-9168-21-1: Jan 27 2021 9:01AM – TORID

PERMIT UNIT: S-9168-22-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

500 BBL SLOP OIL TANK CONNECTED TO EXISTING GAS GATHERING SYSTEM

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
- Storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that routes all VOCs from the storage tank to a field gas gathering system. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rule 2201] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from tank and from components in piping from tank to vapor control system trunk line shall not exceed 1.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from tank vapor control system shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 23% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- 12. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC

Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-22-1: Jan 27 2021 9:01AM - TORIO

Permit Unit Requirements for S-9168-22-1 (continued)

Page 2 of 2

- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit
- 14. 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] Federally Enforceable Through Title V Permit
- 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 2201 and 4623] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 17. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 parts per million by volume (ppmv) for the tank 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ELK HILLS POWER LLC Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA 9-9168-22-1 Jan 27 2021 901MM—TORIO

PERMIT UNIT: S-9168-24-1 EXPIRATION DATE: 10/31/2021

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

O2 REMOVAL SYSTEM WITH 19.5 MMBTU/HR O2 HEATER WITH COEN C-RMB RAPID MIX ULTRA LOW NOX BURNER (OR EQUIVALENT), OXYGEN REMOVAL REACTOR, OXYGEN REMOVAL DISCHARGE COOLER AND SCRUBBER AND 02 REMOVAL COOLER

PERMIT UNIT REQUIREMENTS

- Source testing to measure NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rule 2080] Federally Enforceable Through Title V Permit
- The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
- While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V
- 8. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service on tank shall not exceed 2.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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

Facility Name: ELK HILLS POWER LLC

Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA Permit Unit Requirements for S-9168-24-1 (continued)

Page 2 of 3

- VOC content of the non-condensable TVR vapors shall not exceed 23% by weight. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- 12. Operator shall test and maintain records of VOC content of the non-condensable TVR vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- O2 removal heater shall only be fired on PUC-quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
- Emissions from the natural gas-fired unit shall not exceed any of the following limits: 6 ppmvd NOx @ 3% O2 or 0.007 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 17. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
 Federally Enforceable Through Title V Permit
- 25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

Facility Name: ELK RILLS POWER LLC
Location: 35R GAS PLANT, SECTION SE35, T30S, R23E, TUPMAN, CA
\$-9168-241; Jan 27 2021 9014M - TORID

APPENDIX C PE2 Calculations

S-9168-1

FACILITY NAME

S-9168-1 Inlet Gas System

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?
Weight percentage of VOC in the total organic compounds in gas?
Weight percentage of VOC in the total organic compounds in oil?

Heavy Crude Oil

Gas/Light Liquid

Light Crude Oil

Open-ended

Lines

			Total	Screening Value EF - TOC		VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Туре	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	442	2	0.0019	7.333E+00	5.42	0.99
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	65	2	7.778E-03	7.281E+00	5.27	0.96
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	4,364	8	6.349E-04	1.370E+00	4.81	0.88
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	1,180	2	1.482E-03	3.228E+00	2.87	0.52
_	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00

Heavy Crude Oil 0 7.937E-04 3.762E+00

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppm

Proposed Total Ib/day VOC Emissions = 18.4	
Proposed Total tons/yr VOC Emissions =	3.4
Current Total lb/day VOC Emissions = 7.0	
Current Total tons/yr VOC Emissions =	1.3
Change in Total Ib/day VOC Emissions = 11.4	
Change in Total tons/yr VOC Emissions =	2.1

N/A* 2.905E+00

1.175E+00

0.00

0.00

0.00

0.00

0.00

0.25 %

35.0 % 35.0 %

1.217E-03

9.524E-04

FACILITY NAME

S-9168-2 Mercury Removal System System with Inlet Gas Separator

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

35.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Туре	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	36	1	1.852E-03	7.333E+00	2.59	0.47
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	15	1	7.778E-03	7.281E+00	2.59	0.47
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	62	0	6.349E-04	1.370E+00	0.01	0.00
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	28	0	1.482E-03	3.228E+00	0.01	0.00
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppmv

Proposed Total Ib/day VOC Emissions = 5.2	
Proposed Total tons/yr VOC Emissions =	0.9
Current Total Ib/day VOC Emissions = 1.8	
Current Total tons/yr VOC Emissions =	0.3
Change in Total ib/day VOC Emissions = 3.4	
Change In Total tons/yr VOC Emissions =	0.6

S-9168-3 Inlet Gas Treater with Inlet Gas Amine Contactor, Treated Gas Cooler, Lean Glycol Cooler, Treated Gas Filter Separator

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks ?
Weight percentage of VOC in the total organic compounds in gas?
Weight percentage of VOC in the total organic compounds in oil? 0.50 % 35.0 % 35.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	128	1	1.852E-03	7.333E+00	2.65	0.48
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
_	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	47	1	7.778E-03	7.281E+00	2.67	0.49
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	696	1	6.349E-04	1.370E+00	0.63	0.12
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	139	1	1.482E-03	3.228E+00	1.20	0.22
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

| Heavy Crude Oil | U| 1/35/E-144| 3.762E-140| 0.000

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppmv

Proposed Total Ib/day VOC Emissions = 7.2

Proposed Total tonsy'r VOC Emissions = 2.7

Current Total Ib/day VOC Emissions = 2.7

Current Total tonsy'r VOC Emissions = 5.7

Change is Tatal Ib/day VOC Emissions = 7.8 1.3 0.5 Change in Total Ib/day VOC Emissions = Change in Total tons/yr VOC Emissions =

FACILITY NAME

S-9168-4 Inlet Gas Dehydration with Molecular Sieve Dehydration, Dry Gas Dust Filter, Regeneration Gas Heater, Regeneration Gas Cooler and Scrubber, and Regeneration Gas Cooler

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities

Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

0.50 % Percentage of components with > 10,000 ppmv leaks? 35.0 % Weight percentage of VOC in the total organic compounds in gas? Weight percentage of VOC in the total organic compounds in oil?

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	111	1	1.852E-03	7.333E+00	2.64	0.48
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	28	1	7.778E-03	7.281E+00	2.62	0.48
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	439	1	6.349E-04	1.370E+00	0.58	0.11
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	134	1	1.482E-03	3.228E+00	1.20	0.22
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

Proposed Total Ib/day VOC Emissions = 7.0	
Proposed Total tons/yr VOC Emissions =	1.3
Current Total Ib/day VOC Emissions = 2.6	
Current Total tons/yr VOC Emissions =	0.5
Change in Total lb/day VOC Emissions = 4.4	
Change in Total tons/yr VOC Emissions =	0.8

S-9168-5 NGL RECOVERY WITH EXPANDER/BOOSTER COMPRESSOR, GAS/GAS EXCHANGER, COLD SEPARATOR, DEMETHANIZER REBOILERS, DEMETHANIZER, AND DEETHANIZER FEED PUMPS

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks? 0.50 %
Weight percentage of VOC in the total organic compounds in gas? 35.0 %
Weight percentage of VOC in the total organic compounds in oil? 35.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)		(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	198	2	1.852E-03	7.333E+00	5.26	
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	4	0	1.402E-02	4.709E+00	0.02	
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	51	1	7.778E-03	7.281E+00		
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	226	1	6.349E-04	1.370E+00	0.53	
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04		0.00
Flanges	Gas/Light Liquid	223	1	1.482E-03	3.228E+00	1.24	
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppm

ipment type and service will be assessed as < 10,000 ppmv	
Proposed Total Ib/day VOC Emissions = 9.7	
Proposed Total tons/yr VOC Emissions =	1.8
Current Total Ib/day VOC Emissions = 2.9	
Current Total tons/yr VOC Emissions =	0.5
Change in Total lb/day VOC Emissions = 6.8	
Change in Total tons/yr VOC Emissions =	1.2

FACILITY NAME

S-9168-6 RESIDUE GAS COMPRESSION WITH ELECTRIC MOTOR DRIVEN RESIDUE GAS COMPRESSOR(S), RESIDUE GAS COALESCER(S)

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities

Table IV-2c. Oil and Gas Production

Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks? 0.50 %
Weight percentage of VOC in the total organic compounds in gas? 5.0 %
Weight percentage of VOC in the total organic compounds in oil? 5.0 %

			Total	Screening Val	lue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	62	1	1.852E-03	7.333E+00	0.37	0.07
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	22	1	7.778E-03	7.281E+00	0.37	0.07
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	121	1	6.349E-04	1.370E+00	0.07	0.01
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	24	1	1.482E-03	3.228E+00	0.16	0.03
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

Heavy Crude Oil 0 7.937E-04 3.762E+00

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppmv

•	quipment type and service will be assessed as < 10,000 ppmir	
	Proposed Total Ib/day VOC Emissions = 1.0	
	Proposed Total tons/yr VOC Emissions =	0.2
	Current Total Ib/day VOC Emissions = 0.3	
	Current Total tons/yr VOC Emissions =	0.1
	Change in Total Ib/day VOC Emissions = 0.7	
	Change in Total tons/yr VOC Emissions =	0.1

S-9168-7 DEETHANIZER WITH REFLUX CONDENSER

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks? 0.25 %
Weight percentage of VOC in the total organic compounds in gas? 100.0 %
Weight percentage of VOC in the total organic compounds in oil? 100.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	53	1	1.852E-03	7.333E+00	7.43	1.36
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	11	0	7.778E-03	7.281E+00	0.09	0.02
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	66	1	6.349E-04	1.370E+00	1.41	0.26
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	61	1	1.482E-03	3.228E+00	3.32	0.61
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppm

dipriment type and service will be assessed as < 10,000 ppmv	
Proposed Total Ib/day VOC Emissions = 12.2	
Proposed Total tons/yr VOC Emissions =	2.2
Current Total Ib/day VOC Emissions = 2.6	
Current Total tons/yr VOC Emissions =	0.5
Change in Total Ib/day VOC Emissions = 9.6	
Change in Total tons/yr VOC Emissions =	1.8

FACILITY NAME

S-9168-8 DePropanizer with Reflux Condenser and Reflux Drums

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities

Table IV-2c. Oil and Gas Production

Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

100.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	135	2	1.852E-03	7.333E+00	14.91	2.72
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	4	0	5.270E-02	4.709E+00	0.21	0.04
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	28	0	7.778E-03	7.281E+00	0.22	0.04
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	1,164	2	6.349E-04	1.370E+00	3.48	0.63
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	177	1	1.482E-03	3.228E+00	3.49	0.64
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

princin type and service will be assessed as < 10,000 ppinv	
Proposed Total Ib/day VOC Emissions = 22.3	
Proposed Total tons/yr VOC Emissions =	4.1
Current Total Ib/day VOC Emissions = 12.2	
Current Total tons/yr VOC Emissions =	2.2
Change in Total Ib/day VOC Emissions = 10.1	
Change In Total tons/yr VOC Emissions =	1.8

S-9168-9 DeButanizer with Reflux Condenser and Reflux Drums

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks? 0.25 %
Weight percentage of VOC in the total organic compounds in gas? 100.0 %
Weight percentage of VOC in the total organic compounds in oil? 100.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	124	2	1.852E-03	7.333E+00	14.89	2.72
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	4	0	5.270E-02	4.709E+00	0.21	0.04
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	27	0	7.778E-03	7.281E+00	0.21	0.04
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	660	1	6.349E-04	1.370E+00	1.79	0.33
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	148	1	1.482E-03	3.228E+00	3.45	0.63
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppm.

31	quipment type and service will be assessed as < 10,000 ppmv	
	Proposed Total Ib/day VOC Emissions = 20.5	
	Proposed Total tons/yr VOC Emissions =	3.7
	Current Total Ib/day VOC Emissions = 11.8	
	Current Total tons/yr VOC Emissions =	2.2
	Change in Total ib/day VOC Emissions = 8.7	
	Change in Total tons/yr VOC Emissions =	1.6

FACILITY NAME

S-9168-10 Refrigeration System

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities

Table IV-2c. Oil and Gas Production

Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

100.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	440	2	1.852E-03	7.333E+00	15.48	2.82
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	68	0	7.778E-03	7.281E+00	0.53	0.10
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	3,814	5	6.349E-04	1.370E+00	9.27	1.69
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	1,192	2	1.482E-03	3.228E+00	8.22	1.50
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

Proposed Total Ib/day VOC Emissions = 33.5	
Proposed Total tons/yr VOC Emissions =	6.1
Current Total Ib/day VOC Emissions = 21.6	
Current Total tons/yr VOC Emissions =	3.9
Change in Total ib/day VOC Emissions = 11.9	
Change In Total tons/yr VOC Emissions =	2.2

S-9168-11 Amine System with Regeneration Package

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

35.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	133	2	1.852E-03	7.333E+00	5.22	0.95
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	19	0	7.778E-03	7.281E+00	0.05	0.01
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	89	1	6.349E-04	1.370E+00	0.50	0.09
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	161	1	1.482E-03	3.228E+00	1.21	0.22
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppm

dipinent type and service will be assessed as < 10,000 ppmv	
Proposed Total Ib/day VOC Emissions = 7.0	
Proposed Total tons/yr VOC Emissions =	1.3
Current Total Ib/day VOC Emissions = 2.4	
Current Total tons/yr VOC Emissions =	0.4
Change in Total ib/day VOC Emissions = 4.6	
Change In Total tons/yr VOC Emissions =	0.8

FACILITY NAME

S-9168-12 Glycol System

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

35.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	154	2	1.852E-03	7.333E+00	5.23	0.95
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	2	0	5.270E-02	4.709E+00	0.04	0.01
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	23	0	7.778E-03	7.281E+00	0.06	0.01
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	97	1	6.349E-04	1.370E+00	0.50	0.09
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	182	1	1.482E-03	3.228E+00	1.22	0.22
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

Proposed Total Ib/day VOC Emissions = 7.1	
Proposed Total tons/yr VOC Emissions =	1.3
Current Total Ib/day VOC Emissions = 2.6	
Current Total tons/yr VOC Emissions =	0.5
Change in Total ib/day VOC Emissions = 4.5	
Change In Total tons/yr VOC Emissions =	0.8

S-9168-13 Propane Tank (Exempt), Butane Tank (Exempt), and 16,250 Gallon Natural Gas Tank

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities
Table IV-2c. Oil and Gas Production
Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

100.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	140	2	1.852E-03	7.333E+00	14.92	2.72
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	12	1	5.270E-02	4.709E+00	5.29	0.97
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	39	1	7.778E-03	7.281E+00	7.58	1.38
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	1,006	2	6.349E-04	1.370E+00	3.38	0.62
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	372	1	1.482E-03	3.228E+00	3.78	0.69
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppmv

Proposed Total lb/day VOC Emissions = 34.9	
Proposed Total tons/yr VOC Emissions =	6.4
Current Total Ib/day VOC Emissions = 26.2	
Current Total tons/yr VOC Emissions =	4.8
Change In Total Ib/day VOC Emissions = 8.7	
Change In Total tons/yr VOC Emissions =	1.6

FACILITY NAME

S-9168-14 Hot Oil System

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks? 0.25 %
Weight percentage of VOC in the total organic compounds in gas? 100.0 %
Weight percentage of VOC in the total organic compounds in oil? 100.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	159	1	1.852E-03	7.333E+00	7.63	1.39
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	4	0	5.270E-02	4.709E+00	0.21	0.04
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	30	1	7.778E-03	7.281E+00	7.51	1.37
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	244	1	6.349E-04	1.370E+00	1.52	0.28
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	134	1	1.482E-03	3.228E+00	3.42	0.62
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

ipinent type and service will be assessed as < 10,000 ppinv	
Proposed Total lb/day VOC Emissions = 20.3	
Proposed Total tons/yr VOC Emissions =	3.7
Current Total Ib/day VOC Emissions = 11.7	
Current Total tons/yr VOC Emissions =	2.1
Change in Total ib/day VOC Emissions = 8.6	
Change in Total tons/vr VOC Emissions =	1.6

S-9168-15 Overhead Gas System with Fuel Gas Scrubber, Ethane / CO2 Glycol Contactor, Ethane / CO2 Compressor(s). Ethane Coolers, and Ethat Cooler Components

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities
Table IV-2c. Oil and Gas Production
Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

18.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	159	2	1.852E-03	7.333E+00	2.69	0.49
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	4	0	5.270E-02	4.709E+00	0.04	0.01
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	30	1	7.778E-03	7.281E+00	1.35	0.25
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	146	1	6.349E-04	1.370E+00	0.26	0.05
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	134	1	1.482E-03	3.228E+00	0.62	0.11
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03		0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

^{*} Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppmv

quipment type and service will be assessed as < 10,000 ppmv	
Proposed Total Ib/day VOC Emissions = 5.0	
Proposed Total tons/yr VOC Emissions =	0.9
Current Total Ib/day VOC Emissions = 2.1	
Current Total tons/yr VOC Emissions =	0.4
Change in Total lb/day VOC Emissions = 2.9	
Change in Total tons/yr VOC Emissions =	0.5

FACILITY NAME

S-9168-16 Methanol Injection System with Permit Exempt (<250 Gallon) Methanol Tank

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities
Table IV-2c. Oil and Gas Production
Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

100.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	7	1	1.852E-03	7.333E+00	7.34	1.34
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	2	0	5.270E-02	4.709E+00	0.11	0.02
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	1	1	7.778E-03	7.281E+00	7.28	1.33
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	
Connectors	Gas/Light Liquid	16	0	6.349E-04	1.370E+00	0.01	0.00
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	4	0	1.482E-03	3.228E+00	0.01	0.00
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03		0.00	
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

quipinent type and service will be assessed as < 10,000 ppint	
Proposed Total Ib/day VOC Emissions = 14.7	
Proposed Total tons/yr VOC Emissions =	2.7
Current Total Ib/day VOC Emissions = 7.5	
Current Total tons/yr VOC Emissions =	1.4
Change In Total Ib/day VOC Emissions = 7.2	
Change In Total tons/yr VOC Emissions =	1.3

S-9168-17 2000 Gallon Amine Sump Tank

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

35.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Туре	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	0	0	1.852E-03	7.333E+00	0.00	0.00
	Light Crude Oil	7	1	1.005E-03	3.741E+00	1.31	0.24
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	2	0	1.402E-02	4.709E+00	0.01	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	0	0	7.778E-03	7.281E+00	0.00	0.00
	Light Crude Oil	1	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	0	0	6.349E-04	1.370E+00	0.00	0.00
	Light Crude Oil	16	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	0	0	1.482E-03	3.228E+00	0.00	0.00
	Light Crude Oil	4	1	1.270E-03	1.376E+01	4.82	0.88
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppmv

Proposed Total Ib/day VOC Emissions = 6.1	
Proposed Total tons/yr VOC Emissions =	1.1
Current Total Ib/day VOC Emissions = 0.8	
Current Total tons/yr VOC Emissions =	0.1
Change in Total Ib/day VOC Emissions = 5.3	
Change In Total tons/yr VOC Emissions =	1.0

FACILITY NAME

S-9168-18 Glycol Sump Tank

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

35.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Туре	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	0	0	1.852E-03	7.333E+00	0.00	0.00
	Light Crude Oil	17	1	1.005E-03	3.741E+00	1.31	0.24
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	6	0	1.402E-02	4.709E+00	0.03	0.01
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	10	0	7.778E-03	7.281E+00	0.03	0.00
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	0	0	6.349E-04	1.370E+00	0.00	0.00
	Light Crude Oil	18	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	0	0	1.482E-03	3.228E+00	0.00	0.00
	Light Crude Oil	37	1	1.270E-03	1.376E+01	4.83	0.88
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

ulpriient type and service will be assessed as < 10,000 ppmv	
Proposed Total Ib/day VOC Emissions = 6.21	
Proposed Total tons/yr VOC Emissions =	1.13
Current Total Ib/day VOC Emissions = 0.40	
Current Total tons/yr VOC Emissions =	0.07
Change in Total Ib/day VOC Emissions = 5.81	
Change In Total tons/vr VOC Emissions =	1.06

S-9168-19 Amine Storage Tank Served by Vapor Recovery

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities

Table IV-2c. Oil and Gas Production

Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

37.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	0	0	1.852E-03	7.333E+00	0.00	0.00
	Light Crude Oil	8	1	1.005E-03	3.741E+00	1.39	0.25
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	2	0	1.402E-02	4.709E+00	0.01	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	2	0	7.778E-03	7.281E+00	0.01	0.00
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	0	0	6.349E-04	1.370E+00	0.00	0.00
	Light Crude Oil	8	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	0	0	1.482E-03	3.228E+00	0.00	0.00
	Light Crude Oil	14	1	1.270E-03	1.376E+01	5.10	0.93
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppmv

Proposed Total Ib/day VOC Emissions = 6.5	
Proposed Total tons/yr VOC Emissions =	1.2
Current Total Ib/day VOC Emissions = 1.4	
Current Total tons/yr VOC Emissions =	0.3
Change in Total Ib/day VOC Emissions = 5.1	
Change in Total tons/yr VOC Emissions =	0.9

FACILITY NAME

S-9168-20 Water Storage Tank served by Vapor Recovery

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities

Table IV-2c. Oil and Gas Production

Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

35.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	4	1	1.852E-03	7.333E+00	2.57	0.47
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
-	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	1	0	7.778E-03	7.281E+00	0.00	0.00
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	4	0	6.349E-04	1.370E+00	0.00	0.00
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	6	1	1.482E-03	3.228E+00	1.13	0.21
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
İ	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

(quipment type and service will be assessed as < 10,000 ppmv	
	Proposed Total Ib/day VOC Emissions = 3.7	
	Proposed Total tons/yr VOC Emissions =	0.7
	Current Total Ib/day VOC Emissions = 1.7	
	Current Total tons/yr VOC Emissions =	0.3
	Change in Total Ib/day VOC Emissions = 2.0	
	Change in Total tons/yr VOC Emissions =	0.4

S-9168-21 Produced Water Storage Tank served by Vapor Recovery

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities

Table IV-2c. Oil and Gas Production

Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks? 0.25 %
Weight percentage of VOC in the total organic compounds in gas? 35.0 %
Weight percentage of VOC in the total organic compounds in oil? 35.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	4	1	1.852E-03	7.333E+00	2.57	0.47
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	1	0	7.778E-03	7.281E+00	0.00	0.00
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	4	0	6.349E-04	1.370E+00	0.00	0.00
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	6	1	1.482E-03	3.228E+00	1.13	0.21
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppmv

0.7
0.3
0.4

FACILITY NAME

S-9168-22 SLOP OIL TANK Connected to Exisiting Gathering System (Tank Components)

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

35.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	0	0	1.852E-03	7.333E+00	0.00	0.00
	Light Crude Oil	18	1	1.005E-03	3.741E+00	1.32	0.24
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	0	0	7.778E-03	7.281E+00	0.00	0.00
	Light Crude Oil	7	0	6.931E-03	3.757E-01	0.02	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	0	0	6.349E-04	1.370E+00	0.00	0.00
	Light Crude Oil	4	1	5.291E-04	1.238E+00	0.43	0.08
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	4	0	1.482E-03	3.228E+00	0.00	0.00
	Light Crude Oil	36	1	1.270E-03	1.376E+01	4.83	0.88
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7 937F-04	3.762F±00	0.00	0.00

| Heavy Crude Oil | 0 | 7.937E-04 | 3.762E+00 |
* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppmv

•	quipment type and service will be assessed as a 10,000 ppm		
	Proposed Total Ib/day VOC Emissions = 6.6		
	Proposed Total tonsyr VOC Emissions =	1.2	
	Current Total Ib/day VOC Emissions = 1.2		
	Current Total tons/yr VOC Emissions =	0.2	
	Change in Total Ib/day VOC Emissions = 5.4		
	Change In Total tons/yr VOC Emissions =	1.0	

S-9168-22 SLOP OIL TANK Connected to Exisiting Gathering System (Gathering System Components)

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

35.0 %

			Total	Screening Value EF - TOC		VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Type	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	3	1	1.852E-03	7.333E+00	2.57	0.47
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	0	0	7.778E-03	7.281E+00	0.00	0.00
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	13	0	6.349E-04	1.370E+00	0.00	0.00
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	4	0	1.482E-03	3.228E+00	0.00	0.00
	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppmv

FACILITY NAME

S-9168-24 O2 Removal System

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Oil and Gas Production Screening Value Ranges Emission Factors

Percentage of components with ≥ 10,000 ppmv leaks?

Weight percentage of VOC in the total organic compounds in gas?

Weight percentage of VOC in the total organic compounds in oil?

35.0 %

			Total	Screening Val	ue EF - TOC	VOC	VOC
Equipment		Component	leaking	< 10,000 ppmv	≥ 10,000 ppmv	emissions	emissions
Туре	Service	Count	components	(lb/day/source)	(lb/day/source)	(lb/day)	(tons/yr)
Valves	Gas/Light Liquid	62	1	1.852E-03	7.333E+00	2.61	0.48
	Light Crude Oil	0	0	1.005E-03	3.741E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.408E-04	N/A*	0.00	0.00
Pump Seals	Gas/Light Liquid	0	0	5.270E-02	4.709E+00	0.00	0.00
	Light Crude Oil	0	0	1.402E-02	4.709E+00	0.00	0.00
	Heavy Crude Oil	0	0	N/A	N/A	N/A	
Others	Gas/Light Liquid	16	0	7.778E-03	7.281E+00	0.04	0.01
	Light Crude Oil	0	0	6.931E-03	3.757E-01	0.00	0.00
	Heavy Crude Oil	0	0	3.016E-03	N/A*	0.00	0.00
Connectors	Gas/Light Liquid	352	2	6.349E-04	1.370E+00	1.04	0.19
	Light Crude Oil	0	0	5.291E-04	1.238E+00	0.00	0.00
	Heavy Crude Oil	0	0	4.233E-04	4.233E-04	0.00	0.00
Flanges	Gas/Light Liquid	56	1	1.482E-03	3.228E+00	1.16	0.21
_	Light Crude Oil	0	0	1.270E-03	1.376E+01	0.00	0.00
	Heavy Crude Oil	0	0	1.217E-03	N/A*	0.00	0.00
Open-ended	Gas/Light Liquid	0	0	1.270E-03	2.905E+00	0.00	0.00
Lines	Light Crude Oil	0	0	9.524E-04	1.175E+00	0.00	0.00
	Heavy Crude Oil	0	0	7.937E-04	3.762E+00	0.00	0.00

* Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppmv

Proposed Total Ib/day VOC Emissions =

Proposed Total Ib/day VOC Emissions = 4.8	
Proposed Total tons/yr VOC Emissions =	0.9
Current Total Ib/day VOC Emissions = 2.6	
Current Total tons/yr VOC Emissions =	0.5
Change in Total Ib/day VOC Emissions = 2.2	
Change In Total tons/yr VOC Emissions =	0.4

APPENDIX D BACT Guideline and BACT Analysis

Best Available Control Technology (BACT) Guideline 7.2.7*

Last Update: 8/24/2020

Natural Gas Processing Plant - Valves, Connectors, Flanges, Pressure Relief Device, Compressor Seals, and Pump Seals

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
voc	Inspection and maintenance program pursuant to District Rule 4409, with the following leak repair thresholds:		
	Leak defined as a dripping rate of more than three (3) drops per minute of liquid containing VOC,		
	and		
	A reading of methane in excess of 100 ppmv above background when measured per EPA Method 21 for valves, flanges, compressor seals and pressure relief devices,		
	and		
	A reading of methane in excess of 500 ppmv above background when measured per EPA Method 21 for pump seals.		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

*This is a Summary Page for this Class of Source

Top-Down Analysis for VOC Emissions

Step 1 - Identify All Possible Control Technologies

Achieved in Practice

Inspection and maintenance program pursuant to District Rule 4409, with the following leak repair thresholds:

Leak defined as a dripping rate of more than three (3) drops per minute of liquid containing VOC, and

A reading of methane in excess of 100 ppmv above background when measured per EPA Method 21 for valves, flanges, compressor seals and pressure relief devices, and

A reading of methane in excess of 500 ppmv above background when measured per EPA Method 21 for pump seals.

Step 2 - Eliminate Technologically Infeasible Options

There is no technologically infeasible option.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Inspection and maintenance program pursuant to District Rule 4409, with the following leak repair thresholds:

Leak defined as a dripping rate of more than three (3) drops per minute of liquid containing VOC, and

A reading of methane in excess of 100 ppmv above background when measured per EPA Method 21 for valves, flanges, compressor seals and pressure relief devices, and

A reading of methane in excess of 500 ppmv above background when measured per EPA Method 21 for pump seals.

Step 4 - Cost Effectiveness Analysis

The units currently have most effective control technology listed in step 3 as a technologically feasible option; a cost effectiveness analysis is not required.

Step 5 - Select BACT

Inspection and maintenance program pursuant to District Rule 4409, with the following leak repair thresholds:

Leak defined as a dripping rate of more than three (3) drops per minute of liquid containing VOC, and

A reading of methane in excess of 100 ppmv above background when measured per EPA Method 21 for valves, flanges, compressor seals and pressure relief devices, and

A reading of methane in excess of 500 ppmv above background when measured per EPA Method 21 for pump seals.

APPENDIX E ERC Withdrawal Calculations

VOC	1 st Quarter (lb)	2 nd Quarter (lb)	3 rd Quarter (lb)	4 th Quarter (lb)
ERC S-3951-1	75,129	76,311	77,494	77,493
Offsets Required	12,118	12,118	12,119	12,119
(Includes distance offset ratio)				
Amount Remaining	63,011	64,193	65,375	65,374
Credits reissued under				
ERC S-YYYY-1	63,011	64,193	65,375	65,374

APPENDIX F HRA Summary

San Joaquin Valley Air Pollution Control District Risk Management Review and Ambient Air Quality Analysis

To: David Torii – Permit Services

From: Keanu Morin – Technical Services

Date: April 23, 2020

Facility Name: Elk Hills Power LLC

Location: Latitude: 35.277572; Longitude: -119.477623

S-9168-1-2, -2-2, -3-2, -4-2, -5-2, -6-2, -7-2, -8-2, -9-2, -10-2, -11-

Application #(s): 2, -12-2, -13-2, -14-2, -15-2, -16-2, -17-2, -18-4, -19-2, -20-2, -21-

2, -22-2, -24-2

Project #: S-1200348

Summary

RMR

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
1-2 through 24-2	0.25	0.01 ¹	0.00 ¹	9.21E-08 ¹	No	No
Project Totals	0.25	0.01	0.00	9.21E-08		
Facility Totals	>1	0.25^{2}	0.022	3.01E-06 ²		

Notes:

- Modeling for this project utilized District Policy APR 1965 Aggregrate Methodology.
- Facility Totals reflect combined risk from facilities S-9168 and S-2234. Facilities S-9168 and S-2234 constitute as one stationary source.

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

Unit # 1-2 through 24-2

1. No special requirements.

Project Description

Technical Services received a request on April 01, 2020 to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA)). An AAQA was not performed for the following because there is no standard for Volatile Organic Compounds (VOC's). A Risk Management Review was performed for the following:

- Unit -1-2: MODIFICATION OF INLET GAS SYSTEM WITH ELECTRIC MOTOR DRIVEN INLET GAS COMPRESSOR(S): INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -2-2: MODIFICATION OF MERCURY REMOVAL SYSTEM WITH INLET GAS FILTER SEPARATOR, MERCURY GUARD BED: REVISE FUGITIVE EMISSION LIMIT AND LEAK REQUIREMENTS

- Unit -3-2: MODIFICATION OF INLET GAS TREATING WITH INLET GAS AMINE CONTACTOR, TREATED GAS COOLER, LEAN GLYCOL COOLER, TREATED GAS FILTER SEPARATOR: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -4-2: MODIFICATION OF INLET GAS DEHYDRATION WITH MOLECULAR SIEVE DEHYDRATION, DRY GAS DUST FILTER, REGENERATION GAS HEATER, REGENERATION GAS COOLER AND SCRUBBER, AND REGENERATION GAS COOLER: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -5-2: MODIFICATION OF NGL RECOVERY WITH EXPANDER/BOOSTER COMPRESSOR, GAS/GAS EXCHANGER, COLD SEPARATOR, DEMETHANIZER REBOILERS, DEMETHANIZER, AND DEETHANIZER FEED PUMPS: INCREASE FUGITIVE VOC EMISSION LIMITS
- Unit -6-2: MODIFICATION OF RESIDUE GAS COMPRESSION WITH ELECTRIC MOTOR DRIVEN RESIDUE GAS COMPRESSOR(S), RESIDUE GAS COALESCER(S): INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -7-2: MODIFICATION OF DEETHANIZER WITH REFLUX CONDENSER: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -8-2: MODIFICATION OF DEPROPANIZER WITH REFLUX CONDENSERS AND REFLUX DRUMS: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -9-2: MODIFICATION OF DEBUTANIZER WITH REFLUX CONDENSERS AND REFLUX DRUMS: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -10-2: MODIFICATION OF REFRIGERATION SYSTEM WITH REFRIGERANT SUCTION SCRUBBER, REFRIGERANT COMPRESSOR(S) AND COMPRESSOR COMPONENTS, REFRIGERANT FLASH DRUM, REFRIGERANT CONDENSERS AND COMPONENTS, AND REFRIGERANT SURGE DRUM: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -11-2: MODIFICATION OF AMINE SYSTEM WITH AMINE REGENERATION PACKAGE: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -12-2: MODIFICATION OF GLYCOL SYSTEM WITH GLYCOL REGENERATION PACKAGE: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -13-2: MODIFICATION OF PROPANE TANK (EXEMPT), BUTANE TANK (EXEMPT), AND 16,250 GALLON NATURAL GAS TANK: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -14-2: MODIFICATION OF HOT OIL SYSTEM WITH HOT OIL EXPANSION TANK, HOT OIL PUMPS, AND 164 MMBTU/HR HOT OIL HEATER WITH JOHN ZINK C-RMB RAPID MIX ULTRA-LOW NOX BURNER: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -15-2: MODIFICATION OF OVERHEAD GAS SYSTEM WITH FUEL GAS SCRUBBER, ETHANE/CO2 GLYCOL CONTACTOR, ETHANE/CO2 COMPRESSOR(S), ETHANE COOLERS AND ETHANE COOLER COMPONENTS: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -16-2: MODIFICATION OF METHANOL INJECTION SYSTEM INCLUDING 1,000 GALLON TANK SERVED BY VAPOR CONTROL SYSTEM: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -17-2: MODIFICATION OF 2000 GALLON AMINE SUMP TANK: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -18-4: MODIFICATION OF 3000 GALLON GLYCOL SUMP TANK: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -19-2: MODIFICATION OF 300 BBL AMINE STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM: INCREASE FUGITIVE VOC EMISSION LIMIT

- Unit -20-2: MODIFICATION OF 300 BBL FRESH WATER TANK SERVED BY VAPOR CONTROL SYSTEM: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -21-2: MODIFICATION OF 500 BBL PRODUCED WATER STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -22-2: MODIFICATION OF 500 BBL SLOP OIL TANK CONNECTED TO EXISTING GAS GATHERING SYSTEM: INCREASE FUGITIVE VOC EMISSION LIMIT
- Unit -24-2: MODIFICATION OF 02 REMOVAL SYSTEM WITH 19.5 MMBTU/HR 02 HEATER WITH COEN C-RMB RAPID MIX ULTRA LOW NOX BURNER (OR EQUIVALENT), OXYGEN REMOVAL REACTOR, OXYGEN REMOVAL DISCHARGE COOLER AND SCRUBBER AND 02 REMOVAL COOLER: INCREASE FUGITIVE VOC EMISSION LIMIT

RMR Report

Analysis

The District performed an analysis pursuant to the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015) to determine the possible cancer and non-cancer health impact to the nearest resident or worksite. This policy requires that an assessment be performed on a unit by unit basis, project basis, and on a facility-wide basis. If a preliminary prioritization analysis demonstrates that:

- A unit's prioritization score is less than the District's significance threshold and;
- The project's prioritization score is less than the District's significance threshold and;
- The facility's total prioritization score is less than the District's significance threshold

Then, generally no further analysis is required.

The District's significant prioritization score threshold is defined as being equal to or greater than 1.0. If a preliminary analysis demonstrates that either the unit(s) or the project's or the facility's total prioritization score is greater than the District threshold, a screening or a refined assessment is required

If a refined assessment is greater than one in a million but less than 20 in one million for carcinogenic impacts (Cancer Risk) and less than 1.0 for the Acute and Chronic hazard indices(Non-Carcinogenic) on a unit by unit basis, project basis and on a facility-wide basis the proposed application is considered less than significant. For unit's that exceed a cancer risk of 1 in one million, Toxic Best Available Control Technology (TBACT) must be implemented.

Toxic emissions for this project were calculated using the following methods:

 Toxic emissions for this proposed unit were calculated using emission factors derived from a 2015 SDS for Natural Gas Condensate provided by EP Energy.

These emissions were input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy, risks from the proposed unit's toxic emissions were prioritized using the procedure in the 2016 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 2004-2008 from Fellows (rural dispersion coefficient selected) 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:

	Source Process Rates								
Unit ID	Process Process Material		Process Units	Hourly Process Rate	Annual Process Rate				
1-2 through 24-2	1	VOC	Lbs.	5.3	46,576				

	Area Source Parameters									
Unit ID	Unit Description	Release Height (m)	X-Length (m)	Y -Length (m)	Area (m²)					
1-2 through 24-2	NG VOC Fugitives	2.44	25.00	25.00	625.00					

Notes:

Conclusion

RMR

The cumulative acute and chronic indices for this facility, including this project, are below 1.0; and the cumulative cancer risk for this facility, including this project, is less than 20 in a million. In addition, the cancer risk for each unit in this 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 1 of this report must be included for this proposed unit.

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.

^{1.} Modeling for this project utilized District Policy APR 1965 Aggregate Methodology.

APPENDIX G Draft ATCs

AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-1-2

MODIFICATION OF INLET GAS SYSTEM WITH ELECTRIC MOTOR DRIVEN INLET GAS COMPRESSOR(S):

INCREASE FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 12,118 lb, 2nd quarter - 12,118 lb, 3rd quarter - 12,119 lb, and 4th quarter - 12,119 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 2/18/16) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
- 4. ERC Certificate Number S-3951-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APCO

Arnaud Marjollet Director of Permit Services

Conditions for S-9168-1-2 (continued)

Page 2 of 2

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed timeframes under District Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through
 Title V Permit
- 9. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 18.4 lb/day. [District Rule 2201]
 Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 35% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-2-2

MODIFICATION OF MERCURY REMOVAL SYSTEM WITH INLET GAS FILTER SEPARATOR, MERCURY GUARD BED: REVISE FUGITIVE EMISSION LIMIT AND LEAK REQUIREMENTS

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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-ether governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director APCO

Arnaud Marjollet, Director of Permit Services

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Conditions for S-9168-2-2 (continued)

Page 2 of 2

- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 8. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 5.2 lb/day. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 35% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 15. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

PERMIT NO: S-9168-3-2

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC **MAILING ADDRESS:** 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

MODIFICATION OF INLET GAS TREATING WITH INLET GAS AMINE CONTACTOR, TREATED GAS COOLER, LEAN GLYCOL COOLER, TREATED GAS FILTER SEPARATOR: INCREASE FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APCO

Arnaud Marjollet, Director of Permit Services

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Conditions for S-9168-3-2 (continued)

Page 2 of 2

- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 8. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 7.2 lb/day. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 35% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 15. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-4-2

MODIFICATION OF INLET GAS DEHYDRATION WITH MOLECULAR SIEVE DEHYDRATION, DRY GAS DUST FILTER, REGENERATION GAS HEATER, REGENERATION GAS COOLER AND SCRUBBER, AND REGENERATION GAS COOLER: INCREASE FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APCO

Arnaud Marjollet, Director of Permit Services

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Conditions for S-9168-4-2 (continued)

Page 2 of 2

- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 8. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 7.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 35% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- 14. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-5-2

MODIFICATION OF NGL RECOVERY WITH EXPANDER/BOOSTER COMPRESSOR, GAS/GAS EXCHANGER, COLD SEPARATOR, DEMETHANIZER REBOILERS, DEMETHANIZER, AND DEETHANIZER FEED PUMPS: INCREASE FUGITIVE VOC EMISSION LIMITS

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APCC

Arnaud Marjollet, Director of Permit Services

Conditions for S-9168-5-2 (continued)

Page 2 of 2

- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 8. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 9.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 35% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 15. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

PERMIT NO: S-9168-6-2

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

MODIFICATION OF RESIDUE GAS COMPRESSION WITH ELECTRIC MOTOR DRIVEN RESIDUE GAS COMPRESSOR(S), RESIDUE GAS COALESCER(S): INCREASE FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- 4. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APEC

Arnaud Marjollet, Director of Permit Services

AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-7-2

MODIFICATION OF DEETHANIZER WITH REFLUX CONDENSER: INCREASE FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APCO

Arnaud Marjollet, Director of Permit Services

Conditions for S-9168-7-2 (continued)

Page 2 of 2

- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 8. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 12.2 lb/day. [District Rule 2201]
 Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-8-2

MODIFICATION OF DEPROPANIZER WITH REFLUX CONDENSERS AND REFLUX DRUMS: INCREASE FUGITIVE

VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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-ether governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director APCO

Conditions for S-9168-8-2 (continued)

- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 8. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 22.3 lb/day. [District Rule 2201]
 Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-9-2

MODIFICATION OF DEBUTANIZER WITH REFLUX CONDENSERS AND REFLUX DRUMS: INCREASE FUGITIVE VOC

EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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-ether governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director APCO

Arnaud Marjollet, Director of Permit Services

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Conditions for S-9168-9-2 (continued)

- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 8. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 20.5 lb/day. [District Rule 2201]
 Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-10-2

MODIFICATION OF REFRIGERATION SYSTEM WITH REFRIGERANT SUCTION SCRUBBER, REFRIGERANT COMPRESSOR(S) AND COMPRESSOR COMPONENTS, REFRIGERANT FLASH DRUM, REFRIGERANT CONDENSERS AND COMPONENTS, AND REFRIGERANT SURGE DRUM: INCREASE FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- 2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services 9-9168-10-2: Jan 27 2021 10:01AM - TORID: Joint Inspection NOT Regulred

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

Conditions for S-9168-10-2 (continued)

- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 8. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 33.5 lb/day. [District Rule 2201]
 Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 12. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

LECAL OWNER OR OBERATOR: FLY HILLS DOWER LLC

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC
MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-11-2

MODIFICATION OF AMINE SYSTEM WITH AMINE REGENERATION PACKAGE: INCREASE FUGITIVE VOC

EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APCO

Arnaud Marjollet, Director of Permit Services

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

Conditions for S-9168-11-2 (continued)

- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 8. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 7.0 lb/day. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 35% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- 14. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 15. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-12-2

MODIFICATION OF GLYCOL SYSTEM WITH GLYCOL REGENERATION PACKAGE: INCREASE FUGITIVE VOC

EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APCO

Conditions for S-9168-12-2 (continued)

- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- 7. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 7.1 lb/day. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 35% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 14. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

PERMIT NO: S-9168-13-2

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

MODIFICATION OF PROPANE TANK (EXEMPT), BUTANE TANK (EXEMPT), AND 16,250 GALLON NATURAL GAS

TANK: INCREASE FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Natural gasoline (NGL) storage tank and all piping, valves, and fittings shall be constructed and maintained in a leakfree condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APCC

Conditions for S-9168-13-2 (continued)

- 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 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 34.9 lb/day. [District Rule 2201]
 Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 12. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-14-2

MODIFICATION OF HOT OIL SYSTEM WITH HOT OIL EXPANSION TANK, HOT OIL PUMPS, AND 164 MMBTU/HR HOT OIL HEATER WITH JOHN ZINK C-RMB RAPID MIX ULTRA-LOW NOX BURNER: INCREASE FUGITIVE VOC

EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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-ether governmental agencies which may pertain to the above equipment.

Samir Sheikh Executive Director APCO

Conditions for S-9168-14-2 (continued)

- 5. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 7. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service on tank shall not exceed 20.3 lb/day. [District Rule 2201]
 Federally Enforceable Through Title V Permit
- Hot oil heater shall only be fired on PUC-quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
- Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5 ppmvd NOx @ 3% O2 or 0.0062 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 100 ppmvd CO @ 3% O2 or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 12. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 13. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of startup and at least once every twelve (12) months thereafter. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 17. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title, When mit
- 18. Stack gas oxygen (O2) shall be determined using EPA Wethod 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Pennit

Conditions for S-9168-14-2 (continued)

Page 3 of 3

- 19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
 Federally Enforceable Through Title V Permit
- 21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 22. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 26. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

PERMIT NO: S-9168-15-2

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS:

35R GAS PLANT 4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION:

35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

MODIFICATION OF OVERHEAD GAS SYSTEM WITH FUEL GAS SCRUBBER, ETHANE/CO2 GLYCOL CONTACTOR,

ETHANE/CO2 COMPRESSOR(S), ETHANE COOLERS AND ETHANE COOLER COMPONENTS: INCREASE

FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
- 4. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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-ether governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director APEC

Conditions for S-9168-15-2 (continued)

- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 8. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- 10. VOC fugitive emissions from the components in gas service shall not exceed 5.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. VOC content of the non-condensable vapors shall not exceed 18 % by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- 14. Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

PERMIT NO: S-9168-16-2

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

MODIFICATION OF METHANOL INJECTION SYSTEM INCLUDING 1,000 GALLON TANK SERVED BY VAPOR

CONTROL SYSTEM: INCREASE FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank. The vapors shall be discharged to the gas plant's vacuum system. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

rou <u>MUST</u> NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO DERATING 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.

Samir Sheikh, Executive Director APCO

Conditions for S-9168-16-2 (continued)

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using
 screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass
 Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak
 Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection
 period as required by Rule 4409. [District Rule 2201] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 9. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from components shall not exceed 17.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- 13. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

PERMIT NO: S-9168-17-2
LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD

TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 2000 GALLON AMINE SUMP TANK: INCREASE FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dsef in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APCC

Conditions for S-9168-17-2 (continued)

- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 8. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 6.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 35% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: R23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-18-4

MODIFICATION OF 3000 GALLON GLYCOL SUMP TANK: INCREASE FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- 4. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
- 5. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APCO

Conditions for S-9168-18-4 (continued)

Page 2 of 3

- 6. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 7. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 9. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rule 2201] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 11. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 6.2 lb/day. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 35% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- Monthly average daily throughput shall not exceed 197 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- True Vapor Pressure (TVP) of any organic liquid introduced to or stored in the sump shall not exceed 1.9 psia.
 [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

Conditions for S-9168-18-4 (continued)

Page 3 of 3

- 20. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2201 and 4623] Federally Enforceable Through Title V Permit
- 21. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 22. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 23. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products. [District Rule 4623] Federally Enforceable Through Title V Permit
- 24. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- The permittee shall maintain monthly records of the tank throughput and TVP of the organic liquid introduced or stored in the sump. [District Rule 1070] Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-19-2

MODIFICATION OF 300 BBL AMINE STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM: INCREASE

FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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 the 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.

Samir Sheikh, Executive Director APCO

Conditions for S-9168-19-2 (continued)

Page 2 of 3

- 5. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 7. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service on tank shall not exceed 6.5 lb/day. [District Rule 2201]
 Federally Enforceable Through Title V Permit
- VOC content of the non-condensable TVR vapors shall not exceed 37% by weight. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable TVR vapors no less than annually.
 [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
- Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 14. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. 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 the 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] Federally Enforceable Through Title V Permit
- 17. 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 heither under- or over-reported. [District Rules 2201 and 4623] Federally Enforceable Through Title V Remait

CONDITIONS CONTINUE ON NEXT PAGE

Conditions for S-9168-19-2 (continued)

Page 3 of 3

- 18. 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] Federally Enforceable Through Title V Permit
- 19. 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] Federally Enforceable Through Title V Permit
- 20. 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] Federally Enforceable Through Title V Permit
- 21. Upon detection of a gas leak, defined as a VOC concentration of greater than 2,000 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] Federally Enforceable Through Title V Permit
- 22. 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] Federally Enforceable Through Title V Permit
- 23. 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] Federally Enforceable Through Title V Permit
- 24. 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] Federally Enforceable Through Title V Permit
- 25. 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]



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD

TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-20-2

MODIFICATION OF 300 BBL FRESH WATER TANK SERVED BY VAPOR CONTROL SYSTEM: INCREASE FUGITIVE

VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APCO

Arnaud Marjollet, Director of Permit Services

58-20-2 : Jan 27 2021 10:02AM – TORID : Joint Inspection NOT Required

Conditions for S-9168-20-2 (continued)

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- 5. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 7. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 3.7 lb/day. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 35% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test and maintain records of VOC content of the non-condensable vapors no less than annually.
 [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK and District Rule 4409] Federally Enforceable Through Title V Permit
- Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through
 Title V Permit
- 15. 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 the 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] Federally Enforceable Through Title V Permit
- 16. 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] Federally Enforceable Through Title V Permit
- 17. 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] Federally Enforceable Through Title V Permit
- 18. 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

Conditions for S-9168-20-2 (continued)

Page 3 of 3

- 19. 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] Federally Enforceable Through Title V Permit
- 20. Upon detection of a gas leak, defined as a VOC concentration of greater than 2,000 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] Federally Enforceable Through Title V Permit
- 21. 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] Federally Enforceable Through Title V Permit
- 22. 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] Federally Enforceable Through Title V Permit
- 23. 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] Federally Enforceable Through Title V Permit
- 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]



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-21-2

MODIFICATION OF 500 BBL PRODUCED WATER STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM: INCREASE FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APCO

Conditions for S-9168-21-2 (continued)

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- 6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rule 2201] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 8. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service shall not exceed 3.7 lb/day. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 35% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK and District Rule 4409] Federally Enforceable Through Title V Permit
- Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
- 15. 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 the 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] Federally Enforceable Through Title V Permit
- 16. 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] Federally Enforceable Through Title V Permit
- 17. 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] Federally Enforceable Through Title V Permit
- 18. 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

Conditions for S-9168-21-2 (continued)

Page 3 of 3

- 19. 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] Federally Enforceable Through Title V Permit
- 20. Upon detection of a gas leak, defined as a VOC concentration of greater than 2,000 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] Federally Enforceable Through Title V Permit
- 21. 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] Federally Enforceable Through Title V Permit
- 22. 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] Federally Enforceable Through Title V Permit
- 23. 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] Federally Enforceable Through Title V Permit
- 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]



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-22-2

MODIFICATION OF 500 BBL SLOP OIL TANK CONNECTED TO EXISTING GAS GATHERING SYSTEM: INCREASE

FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
- Storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that routes all VOCs
 from the storage tank to a field gas gathering system. The vapor recovery system shall be APCO-approved and
 maintained in leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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.

Samir Sheikh, Executive Director APCO

Conditions for S-9168-22-2 (continued)

Page 2 of 3

- Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 7. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA 453/R-95-017, November 1995). Emissions shall be calculated after each quarterly inspection period as required by Rule 4409. [District Rule 2201] Federally Enforceable Through Title V Permit
- This permit allows for a specified percentage of allowed leaking components as defined in this permit to be discovered
 within prescribed time frames under Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V
 Permit
- 9. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from tank and from components in piping from tank to vapor control system trunk line shall not exceed 1.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from tank vapor control system shall not exceed 9.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of the non-condensable vapors shall not exceed 35% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- Operator shall test VOC content of the non-condensable vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
- Permittee shall comply with applicable monitoring, inspection, maintenance, recordkeeping, reporting, and leak requirements of Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit
- 17. 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] Federally Enforceable Through Title V Permit
- 18. 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 2201 and 4623] Federally Enforceable Through Title V Permit
- 19. 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] Federally Enforceable Through Title V Permit
- 20. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 parts per million by volume (ppmv) for the tank 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

Conditions for S-9168-22-2 (continued)

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- 21. 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] Federally Enforceable Through Title V Permit
- 22. 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] Federally Enforceable Through Title V Permit
- 23. 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] Federally Enforceable Through Title V Permit
- 24. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: ELK HILLS POWER LLC

MAILING ADDRESS: 35R GAS PLANT

4026 SKYLINE ROAD TUPMAN, CA 93276

LOCATION: 35R GAS PLANT

SECTION SE35, T30S, R23E

TUPMAN, CA

SECTION: NW35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

PERMIT NO: S-9168-24-2

MODIFICATION OF 02 REMOVAL SYSTEM WITH 19.5 MMBTU/HR 02 HEATER WITH COEN C-RMB RAPID MIX ULTRA LOW NOX BURNER (OR EQUIVALENT), OXYGEN REMOVAL REACTOR, OXYGEN REMOVAL DISCHARGE COOLER AND SCRUBBER AND 02 REMOVAL COOLER: INCREASE FUGITIVE VOC EMISSION LIMIT

CONDITIONS

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
 application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- 3. ATC S-9168-1-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
- Source testing to measure NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up.
 [District Rule 2080] Federally Enforceable Through Title V Permit
- The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCC

Conditions for S-9168-24-2 (continued)

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- While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
 emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three
 minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
 Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using screening value emissions factors of CARB/CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
- VOC fugitive emissions from the components in gas service on tank shall not exceed 4.8 lb/day. [District Rule 2201]
 Federally Enforceable Through Title V Permit
- VOC content of the non-condensable TVR vapors shall not exceed 35% by weight. [District Rule 2201] Federally
 Enforceable Through Title V Permit
- 15. Operator shall test and maintain records of VOC content of the non-condensable TVR vapors no less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC content by weight percent (wt. %) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases. [District Rule 1081] Federally Enforceable Through Title V Permit
- O2 removal heater shall only be fired on PUC-quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
- Emissions from the natural gas-fired unit shall not exceed any of the following limits: 6 ppmvd NOx @ 3% O2 or 0.007 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

Conditions for S-9168-24-2 (continued)

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- 20. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 22. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 25. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 27. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 29. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

Conditions for S-9168-24-2 (continued)

Page 4 of 4

- 32. Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK, District Rule 2201, and District Rule 4409] Federally Enforceable Through Title V Permit
- All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 40 CFR 60.48c(i)] Federally Enforceable Through Title V Permit

