



JAN 24 2018

Mr. Tim Alburger
Seneca Resources Corporation
4800 Corporate Court
Bakersfield, CA 93311

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit
Facility Number: S-4159
Project Number: S-1163228**

Dear Mr. Alburger:

Enclosed for your review is the District's analysis of Seneca Resources Corporation's application for the Federally Mandated Operating Permit for its operation in their Western Kern County Fields Heavy Oil Stationary Source, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Federally Mandated Operating Permit. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

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

Sincerely,



Arnaud Marjolle
Director of Permit Services

Enclosures

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

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**SAN JOAQUIN VALLEY
UNIFIED AIR POLLUTION CONTROL DISTRICT**

SENECA RESOURCES

ENGINEERING EVALUATION

TABLE OF CONTENTS

Section	Page
I. PROPOSAL	1
II. FACILITY LOCATION	1
III. EQUIPMENT LISTING	1
IV. GENERAL PERMIT TEMPLATE USAGE	1
V. SCOPE OF EPA AND PUBLIC REVIEW	1
VI. REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES.....	1
VII. APPLICABLE REQUIREMENTS	2
VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE	4
IX. COMPLIANCE	6
X. PERMIT SHIELD.....	53
XI. PERMIT CONDITIONS	53

ATTACHMENT A - DRAFT TITLE V PERMITS

ATTACHMENT B - CURRENT PERMIT TO OPERATE

TITLE V APPLICATION REVIEW

Project #: S-1163228
Deemed Complete: 11/10/16

Engineer: David Torii
Date:

Facility Number: S-4159
Facility Name: Seneca Resources Corporation
Mailing Address: 4800 Corporate Court
Bakersfield, CA 93311

Contact Name: Tim Alburger
Phone: (661) 399-4270 x354

Responsible Official: Tim Alburger
Title: Senior Advisor, EHSQ

I. PROPOSAL

Seneca Resources Corporation is proposing that an initial Title V permit be issued for its heavy oil and gas production operation facility S-4159. The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with those applicable requirements, and to provide the legal and factual basis for proposed permit conditions.

II. FACILITY LOCATION

The facility is located in the Western Kern County Fields Heavy Oil Stationary Source Kern County, CA.

III. EQUIPMENT LISTING

A detailed facility report listing all permitted equipment at the facility is shown in Attachment A.

A summary of the exempt equipment categories which describe the insignificant activities or equipment at the facility not requiring a permit is shown in Attachment B. This equipment is not exempt from facility-wide requirements.

IV. GENERAL PERMIT TEMPLATE USAGE

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

V. SCOPE OF EPA AND PUBLIC REVIEW

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

VI. APPLICABLE REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES

The applicant has not proposed to utilize any model general permit templates. All applicable requirements are explicitly addressed in the permit outside of the general permit templates.

VII. APPLICABLE REQUIREMENTS

- District Rule 1100, Equipment Breakdown, (amended December 17, 1992)
- District Rule 1160, Emission Statements (adopted November 18, 1992)
- District Rule 1070, Inspections, (amended December 17, 1992)
- District Rule 1080, Stack Monitoring (Amended December 17, 1992)
- District Rule 1081, Source Sampling, (amended December 16, 1993)
- District Rule 1100, Equipment Breakdown (amended December 17, 1992)
- District Rule 2010, Permits Required, (amended December 17, 1992)
- District Rule 2020 Exemptions, (Amended December 18, 2014)
- District Rule 2031, Transfer of Permits, (amended December 17, 1992)
- District Rule 2040, Applications, (amended December 17, 1992)
- District Rule 2070, Standards for Granting Applications, (amended December 17, 1992)
- District Rule 2080, Conditional Approval, (amended December 17, 1992)
- District Rule 2201, New and Modified Stationary Source Review Rule (amended 2/18/16)
- District Rule 2410, Prevention of Significant Deterioration (adopted June 16, 2011, effective November 26, 2012)
- District Rule 2520, Federally Mandated Operating Permits, Sections 5.2, 9.1.1, 9.4, 9.5, 9.7, 9.8, 9.9, 9.13.1, 9.13.2, 9.16, and 10.0, (amended June 21, 2001)
- District Rule 4001 New Source Performance Standards (Amended January 19, 1995; Amended September 17, 1997; Amended April 14, 1999)
- District Rule 4101, Visible Emissions, (amended November 15, 2001 ⇒ amended February 17, 2005)
- District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)
- District Rule 4202, Particulate Matter - Emission Rate (amended December 17, 1992)
- District Rule 4201, Particulate Matter Concentration, (amended December 17, 1992)
- District Rule 4301, Fuel Burning Equipment, (amended December 17, 1992)
- District Rule 4305, Boilers, Steam Generators, and Process Heaters - Phase 2, (amended August 21, 2003)

- District Rule 4306, Boilers, Steam Generators, and Process Heaters - Phase 3, (amended October 16, 2008)
- District Rule 4311 Flares (amended June 18, 2009)
- District Rule 4320, Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater Than 5.0 MMBtu/Hr, (amended October 16, 2008)
- District Rule 4401, Steam-Enhanced Crude Oil Production Wells, (amended June 16, 2011)
- District Rule 4601, Architectural Coatings, (amended October 31, 2001 ⇒ amended December 17, 2009)
- District Rule 4623, Storage of Organic Liquids, (amended May 19, 2005)
- District Rule 4801, Sulfur Compounds, (amended December 17, 1992)
- District Rule 8021, Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities, (adopted November 15, 2001; amended August 19, 2004)
- District Rule 8031, Bulk Materials, (adopted November 15, 2001; amended August 19, 2004)
- District Rule 8041, Carryout and Trackout, (adopted November 15, 2001; amended August 19, 2004)
- District Rule 8051, Open Areas, (adopted November 15, 2001; amended August 19, 2004)
- District Rule 8061, Paved and Unpaved Roads, (adopted November 15, 2001; amended August 19, 2004)
- District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas, (adopted November 15, 2001; amended September 16, 2004)
- 40 CFR Part 60 Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (1/20/11 and 2/16/2012)
- 40 CFR Part 60 Subpart K—Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 (10/17/2000)
- 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 (10/15/03)
- 40 CFR Part 60, Subpart OOOO Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (8/12/15)
- 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos (7/20/04)
- 40 CFR Part 64, Compliance Assurance Monitoring (10/22/97)
- 40 CFR Part 82, Subpart B, Stratospheric Ozone, (amended November 9, 2007)
- 40 CFR Part 82, Subpart F, Stratospheric Ozone, (amended June 8, 2008)

VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

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

This facility is subject to the following District-only requirements that are not currently federally enforceable:

1. District Rule 1100 – Equipment Breakdown

This rule defines a breakdown condition and the procedures to follow if one occurs. The corrective action, the issuance of an emergency variance, and the reporting requirements are also specified. This rule shall apply to any owner or operator of any source operation with any air pollution control equipment or related operating equipment which controls air emissions or any continuous monitoring equipment.

Section 6 provides breakdown procedures including notification procedures to notify the District when a breakdown conditions occurs.

The following conditions in the facility-wide permit ensure compliance with this rule:

S-4159-0-1
Condition
The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)]
The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)]
Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0]

2. District Rule 1160 – Emission Statements

The purpose of this rule is to provide the District with an accurate accounting of emissions from significant sources with which the District and Air Resources Board (ARB) can compile an accurate inventory.

Section 5.0 requires the owner or operator of any stationary source to provide the District with a written emissions statement showing actual emissions of reactive organic gases (ROGs) and nitrogen oxides (NOx) from that source. The District waives this requirement for sources emitting less than 25 tons per year of these pollutants if the District provides the Air Resources Board (ARB) with an emissions inventory of sources emitting greater than 10 tons per year of NOx or ROGs based on the use of emission factors acceptable to the ARB.

The following condition in the facility-wide permit ensures compliance with this rule:

S-4159-0-1
Condition
The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0]

3. District Rule 2040 – Applications

The purpose of this rule is to explain the procedures for filing, denying, and appealing the denial of applications for an Authority to Construct or a Permit to Operate.

The following condition in the facility-wide permit ensures compliance with this rule:

S-4159-0-1
Condition
Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Y

4. District Rule 4102 – Nuisance

This rule prevents the discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property.

The following condition is listed on the facility-wide permit to prohibit nuisance conditions for each unit at the facility.

S-4159-0-1
Condition
No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

5. Public Resources Code 21000-21177: California Environmental Quality Act

The California Environmental Quality Act (CEQA) is California's broadest environmental law. CEQA helps to guide the Department during issuance of permits and approval of projects. CEQA applies to all discretionary projects proposed to be conducted or approved by a California public agency, including private projects requiring discretionary government approval.

The facility's permits currently do not have CEQA requirements.

IX. COMPLIANCE

A. Requirements Addressed by Model General Permit Templates

The applicant has not proposed to utilize any model general permit templates. All applicable requirements are explicitly addressed in the permit outside of the general permit templates.

B. Requirements Not Addressed by Model General Permit Templates

1. District Rule 1070 – Inspections

The purpose of this rule is to explain the District's authority in determining compliance with the requirements of these rules and regulations.

The following condition is listed on the facility-wide permit to ensure compliance.

S-4159-0-1
Condition
All records shall be retained on-site for a period of at least five (5) years and made available for District inspection upon request. [District Rule 1070]

2. District Rule 1081 – Source Sampling

The purpose of this rule is to ensure that any source operation which emits or may emit air contaminants provides adequate and safe facilities for use in sampling to determine compliance. This rule also specifies methods and procedures for source testing, sample collection, and compliance determination.

The following conditions are listed on the following permits to ensure compliance with source sampling requirements.

Rule 1081	
Permit	Condition
S-4159-6-2	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]
S-4159-6-2	The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
S-4159-7-4	Permittee shall measure the sulfur content of the gas combusted by District witnessed, or authorized, sample collection by ARB certified testing laboratory at startup and annually thereafter or upon change of source of flared gas. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 1081, 7.2 and 2201]
S-4159-7-4	The sulfur content of the combusted gas shall be determined using ASTM test methods D-1072, D-3246, D-6228, or double GC for H ₂ S and Mercaptans. H ₂ S concentration (ppmv) of the gas shall be determined using ASTM test methods D-1072 or D-4084, using Draeger tube, or by gas supplier test data consistent with the natural gas fuel sulfur content test method listed in this permit. [District Rule 1081]

3. District Rule 2010 – Permits Required

The purpose of this rule is to require any person constructing, altering, replacing or operating any source operation which emits, may emit, or may reduce emissions to obtain an Authority to Construct (ATC) or a Permit to Operate (PTO). This rule also explains the posting requirements for a Permit to Operate and the illegality of a person willfully altering, defacing, forging, counterfeiting or falsifying any Permit to Operate.

The provisions of this rule shall apply to any person who plans to or does operate, construct, alter, or replace any source operation which may emit air contaminants or may reduce the emission of air contaminants.

Sections 3.0 and 4.0 require any person building, modifying or replacing any operation that may cause the issuance of air contaminants to apply for an ATC from the District in advance. The ATC will remain in effect until the PTO is granted.

The following permit conditions ensure compliance with this rule:

S-4159-0-1
Condition
Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020]
Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Y
Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2]

4. District Rule 2020 – Exemptions

This rule specifies emissions units that are not required to obtain an Authority to Construct or Permit to Operate. This rule also specifies the recordkeeping requirements to verify the exemption and outlines the compliance schedule for emissions units that lose the exemption after installation. This rule shall apply to any source that emits or may emit air contaminants.

The following condition addresses this rule:

S-4159-0-1
Condition
Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020]

5. District Rule 2031 – Transfer of Permits

District Rule 2031 prohibits the transfer of Permits to Operate or Authorities to Construct from one location to another, from one piece of equipment to another, or from one person to another unless a new application is filed with and approved by the District.

The following conditions address this rule:

S-4159-0-1
Condition
A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031]
Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2]

6. District Rule 2070 – Standards for Granting Applications

District Rule 2070 requires sources to be constructed and operated as specified in the Authority to Construct and the Permit to Operate and requires that source comply with the applicable requirements of District Rule 2201 (New and Modified Stationary Source Review Rule), District Rule 4001 (New Source Performance Standards), and District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants). District Rule 2070 also explains the standards by which an APCO may deny an application for an Authority to Construct or Permit to Operate.

The following conditions address this rule:

S-4159-0-1
Condition
The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Y
Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2]

7. District Rule 2080 – Conditional Approval

The purpose of this rule is to grant authority to the APCO to issue or revise specific written conditions on an Authority to Construct or a Permit to Operate to ensure compliance with air contaminant emission standards or limitations.

The following conditions address this rule:

S-4159-0-1
The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Y
Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2]

8. District Rule 2201 – New and Modified Stationary Source Review Rule

The purpose of this Rule is to provide for the review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission trade-offs by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards.

Sections 4.1, 4.7, 5.5 and 5.7 require the application of the Best Available Control Technology (BACT), Emissions Offsets, Public Noticing and placement of Daily Emissions Limits to each permit unit.

The following conditions are listed on the specified permits to ensure compliance with Rule 2201.

S-4159-1-2
1,500 BBL FIXED ROOF CRUDE OIL STORAGE TANK #13857
This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] N
Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. Permittee shall keep monthly records of the average daily oil throughput. [District Rule 2201]
VOC emissions from this tank shall not exceed 5.2 lb/day. [District Rule 2201]

S-4159-2-3
1,500 BBL FIXED ROOF CONSTANT LEVEL CRUDE OIL TANK #135775
This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623]
Tank shall operate only at constant level. [District Rule 2201]
VOC emissions from tank shall not exceed 2.7 lb/day. [District Rule 2201]

S-4159-4-4
1,500 BBL FWKO WITH A 125,000 BTU/HR HIRT-TYPE VAPOR INCINERATOR WITH LPG PILOT FUEL AND ASSOCIATED CONTROLS AND VAPOR PIPING SHARED WITH PERMIT UNITS S-4159-5, -8 AND -9
Emissions from the vapor incinerator unit shall not exceed any of the following limits: 0.01 lb-NOx/MMBtu, 0.0164 lb-SOx/MMBtu, 0.0077 lb-PM10/MMBtu, 0.082 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rule 2201]
VOC emission rate from vapor service components associated with the FWKO and vapor control system shall not exceed 0.3 lb/day. [District Rule 2201]
Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from the FWKO and vapor control system 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 (<10,000 ppmv) Emission Factors. [District Rule 2201]
There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with FWKO. [District Rule 2201]

S-4159-5-2
2000 BBL FIXED ROOF CRUDE OIL STORAGE TANK CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-4159-4
VOC emission rate from vapor service components associated with tank shall not exceed 0.1 lb/day. [District Rule 2201] N
Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank 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 (<10,000 ppmv) Emission Factors. [District Rule 2201]
Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank 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 (<10,000 ppmv) Emission Factors. [District Rule 2201]

S-4159-6-2
19.0 MMBTU/HR NATURAL GAS/PROPANE-FIRED STEAM GENERATOR WITH GIDEON MODEL MGW-25R1 ULTRA LOW NOX BURNER
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]
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]
The unit shall only be fired on PUC-regulated quality natural gas, propane, or a combination thereof. [District Rule 2201]
This steam generator is not authorized to incinerate casing gas. [District Rule 2201]
Emissions from the natural gas/propane-fired unit shall not exceed any of the following limits: 9 ppmvd NO _x @ 3% O ₂ or 0.0011 lb-NO _x /MMBtu, 0.0164 lb-SO _x /MMBtu, 0.0076 lb-PM ₁₀ /MMBtu, 35 ppmvd CO @ 3% O ₂ or 0.026 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306]
Source testing to measure NO _x and CO emissions from this unit while fired on natural gas or propane shall be conducted within 60 days of initiating combustion of each fuel type. [District Rules 2201, 4305, and 4306]

S-4159-7-4
THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 40 STEAM ENHANCED WELLS WITH OPEN CASING VENTS SERVED BY VAPOR CONTROL SYSTEM INCLUDING COMPRESSOR(S), GAS/LIQUID SEPARATOR, AND 10.4 MMBTU/HR FLARE
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]
TEOR wells shall be authorized to operate with open or closed casing vents. [District Rule 2201 and 4401]
Vapors from TEOR wells operated with open casing vents shall be sent to only to vapor control system served by 10.4 MMBtu/hr flare. [District Rule 2201]
Leaks exceeding an instrument reading of 10,000 ppmv are a violation of this permit. [District Rules 2201 and 4401]
Fugitive VOC emissions from TEOR operation shall not exceed 1.9 lb/day. [District Rule 2201]
This permit shall not authorize the utilization of any IC engine, or other combustion device requiring a separate permit, for powering the air assist to the flare. [District Rule 2201]
The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2201]
Flare shall be equipped with air assist which shall be utilized when needed to maintain visible emissions below Ringlemann 1/4 and 5% opacity. [District Rule 2201]
A flame shall be present at all times when combustible gases are vented through this flare. [District Rule 2201]
Sulfur concentration of gas combusted in flare shall not exceed 2.66 gr S/100 scf (45 ppmv H ₂ S). [District Rule 2201]

S-4159-7-4
Flare shall be equipped with total gas volume flow meter. [District Rule 2201]
Maximum amount of gas combusted shall not exceed 250 MMBtu/day. [District Rule 2201]
Maximum amount of gas combusted shall not exceed 91,250 MMBtu/yr. [District Rule 2201]
Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NO _x (as NO ₂): 0.068lb/MMBtu; PM ₁₀ : 0.008 lb/MMBtu; CO: 0.37 lb/MMBtu; or VOC: 0.063 lb/MMBtu. [District Rule 2201]
Permittee shall measure the sulfur content of the gas combusted by District witnessed, or authorized, sample collection by ARB certified testing laboratory at startup and annually thereafter or upon change of source of flared gas. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 1081, 7.2 and 2201]
The higher heating value of the flared gas shall be monitored at least quarterly or upon change of source of flared gas. [District Rules 1070 and 2201]
Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201]
Permittee shall keep accurate records of daily and annual heat input to the flare in MMBtu/day and MMBtu/yr. [District Rule 2201]

S-4159-8-2
500 BBL FIXED ROOF CRUDE OIL GAUGE TANK CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-4159-4
VOC emission rate from vapor service components associated with the tank shall not exceed 0.1 lb/day. [District Rule 2201]
Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from the tank 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 (<10,000 ppmv) Emission Factors. [District Rule 2201]
There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201]

S-4159-9-1
2,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK CONNECTED TO THE VAPOR RECOVERY CONTROL SYSTEM LISTED ON S-4159-4 (HOYT LEASE)
VOC emission rate from vapor service components associated with the tank shall not exceed 0.1 lb/day. [District Rule 2201]
There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201]
Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from the tank 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 (<10,000 ppmv) Emission Factors. [District Rule 2201]

9. District Rule 2410 – Prevention of Significant Deterioration

The prevention of significant deterioration (PSD) program is a construction permitting program for new major stationary sources and major modifications to existing major stationary sources located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant. The provisions of this rule apply to any source and the owner or operator of any source subject to any requirement under Title 40 Code of Federal Regulations (40 CFR) Part 52.21 as incorporated into this rule.

There are no PSD requirements for this source. Therefore, the facility is not subject to this rule and no further discussion is required.

10. District Rule 2520 – Federally Mandated Operating Permits

The purpose of this rule is to provide:

- a. An administrative mechanism for issuing operating permits for new and modified sources of air contaminants in accordance with requirements of 40 CFR 70.
- b. An administrative mechanism for issuing renewed operating permits for sources of air contaminants in accordance with requirements of 40 CFR 70.
- c. An administrative mechanism for revising, reopening, revoking, and terminating operating permits for sources of air contaminants in accordance with requirements of 40 CFR 70.
- d. An administrative mechanism for incorporating requirements authorized by preconstruction permits issued under District Rule 2201 (New and Modified Stationary Source Review) in a Part 70 permit as administrative amendments, provided that such permits meet procedural requirements substantially equivalent to the requirements of 40 CFR 70.7 and 70.8, and compliance requirements substantially equivalent to those contained in 40 CFR 70.6.

The facility-wide permit addresses the ongoing requirements of Rule 2520. None of the other permits at this facility contain any requirements from Rule 2520.

11. District Rule 4101 – Visible Emissions

This rule prohibits the emission of visible air contaminants to the atmosphere. The provisions of this rule shall apply to any source operation which emits or may emit air contaminants.

Section 5.0 prohibits the discharge of any air contaminant for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart; or is of such opacity as to obscure an observer's view to a degree equal to or greater than the smoke described in Section 5.1 of Rule 4101.

The following condition addresses this rule:

S-4159-0-1
No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)]

12. District Rule 4201 – Particulate Matter Concentration

The purpose of this rule is to protect the ambient air quality by establishing a particulate matter emission standard of 0.1 grains per dscf.

The following condition is listed on the following permits to ensure compliance with Rule 4201.

Rule 4201	
Permit	Condition
S-4159-6-2	Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] N

13. District Rule 4305 – Boilers, Steam Generators, and Process Heaters – Phase 2

The purpose of this rule is to limit NO_x and CO from boilers, steam generators, and process heaters.

The units at this facility are also subject to District Rule 4306, *Boilers, Steam Generators and Process Heaters – Phase 3*.

Since the emissions limits and all other requirements of District Rule 4306 are equivalent to or more stringent than District Rule 4305 requirements, compliance with District Rule 4306 will satisfy requirements of District Rule 4305.

See the discussion of Rule 4306 below.

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

The purpose of this rule is to limit emissions of oxides of nitrogen (NO_x) and carbon monoxide (CO) from boilers, steam generators, and process heaters.

The units at this facility are also subject to District Rule 4320 *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters greater than 5.0 MMBtu/hr.*

Since the emissions limits and all other requirements of District Rule 4320 are equivalent to or more stringent than District Rule 4306 requirements, compliance with District Rule 4320 will satisfy requirements of District Rule 4306.

See the discussion of Rule 4320 below.

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

The purpose of this rule is to limit emissions of oxides of nitrogen (NO_x), carbon monoxide (CO), oxides of sulfur (SO₂), and particulate matter 10 microns or less (PM₁₀) from boilers, steam generators, and process heaters.

This rule limits NO_x, CO, SO₂ and PM₁₀ emissions from boilers, steam generators and process heaters rated at greater than 5 MMBtu/hr.

Units S-4159-6 is subject to Rules 4305, 4306 and 4320.

Section 5.1 Requirements (NO_x and CO)

Section 5.1 states that an operator of units subject to this rule shall comply with all applicable requirements of the rule and one of the following, on a unit-by-unit basis:

- 5.1.1 Operate the unit to comply with the emission limits specified in Sections 5.2 and 5.4; or
- 5.1.2 Pay an annual emissions fee to the District as specified in Section 5.3 and comply with the control requirements specified in Section 5.4; or
- 5.1.3 Comply with the applicable Low-use Unit requirements of Section 5.5.

The following conditions are listed on the following permit to ensure compliance with Rule 4320.

Rule 4320	
Permit	Condition
S-4159-6-2	Emissions from the natural gas/propane-fired unit shall not exceed any of the following limits: 9 ppmvd NO _x @ 3% O ₂ or 0.0011 lb-NO _x /MMBtu, 0.0164 lb-SO _x /MMBtu, 0.0076 lb-PM ₁₀ /MMBtu, 35 ppmvd CO @ 3% O ₂ or 0.026 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4320]

Section 5.4 Particulate Matter Control Requirements

Section 5.4.1 states that to limit particulate matter emissions, an operator shall comply with one of the options listed in the rule.

- 5.4.1.1 Firing the unit exclusively on PUC-quality gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases;
- 5.4.1.2 Limiting the fuel sulfur content to no more than five (5) grains of total sulfur per hundred (100) standard cubic feet.
- 5.4.1.3 Installing and properly operating an emissions control system that reduces SO₂ emissions by at least 95% by weight; or limit exhaust SO₂ to less than or equal to 9 ppmv corrected to 3 % O₂.

The steam generator is fired on pipeline quality gas.

The following conditions are listed on the following permits to ensure compliance with this section:

Rule 4320	
Permit	Condition
S-4159-6-2	<p>The unit shall only be fired on PUC-regulated quality natural gas, propane, or a combination thereof. [District Rules 2201 and 4320] N</p> <p>This steam generator is not authorized to incinerate casing gas. [District Rules 2201 and 4320] N</p>

Section 5.5 Low-Use Unit

This section discusses the requirements of low-use units. This section of the rule is not applicable to this project.

Section 5.6 Start-up and Shutdown Provisions

The applicable limits of Sections 5.2 Table 1 shall not apply during start-ups or shut-downs provided the duration of each start-up or each shutdown does not exceed 2 hours and the control system is in operation and emissions minimized (insofar as technologically feasible).

This section discusses start-up and shutdown provisions. This section of the rule is not applicable to this project.

Section 5.7 Monitoring Provisions

Section 5.7.1 requires that permit units subject to District Rule 4320, Section 5.2 shall either install or maintain an operational APCO approved Continuous Emission Monitoring System (CEMS) for NO_x, CO and O₂, or implement an APCO-approved alternate monitoring.

The facility has implemented Alternate Monitoring Scheme A (pursuant to District Policy SSP-1105), which requires periodic monitoring of NO_x, CO, and O₂ concentrations at least once each month using a portable analyzer.

The following conditions are listed on the following permit to ensure compliance with this section:

Rule 4320	
Permit	Condition
S-4159-6-2	The permittee shall monitor and record the stack concentration of NO _x , CO, and O ₂ 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] N
	If either the NO _x or CO concentrations corrected to 3% O ₂ , as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320]
	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]
	The permittee shall maintain records of: (1) the date and time of NO _x , CO, and O ₂ measurements, (2) the O ₂ concentration in percent and the measured NO _x and CO concentrations corrected to 3% O ₂ , (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken

Rule 4320	
Permit	Condition
	to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320]
	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]

Section 5.7.6.1 requires that operators complying with Sections 5.4.1.1 or 5.4.1.2 shall provide an annual fuel analysis to the District unless a more frequent sampling and reporting period is included in the Permit to Operate.

The following conditions are listed on the following permit to ensure compliance with this section:

Rule 4320	
Permit	Condition
S-4159-6-2	The unit shall only be fired on PUC-regulated quality natural gas, propane, or a combination thereof. [District Rules 2201 and 4320]

Section 5.8 Compliance Determination

Section 5.8.1 requires that the operator of any unit have the option of complying with either the applicable heat input (lb/MMBtu), emission limits or the concentration (ppmv) emission limits specified in Section 5.2. The emission limits selected to demonstrate compliance shall be specified in the source test proposal pursuant to Rule 1081 (Source Sampling).

Section 5.8.2 requires that all emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the PTO. Unless otherwise specified in the PTO, 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. The following condition is listed on the permits to ensure compliance.

Section 5.8.3 specifies the averaging period for Continuous Emissions Monitoring (CEMS). None of the steam generators are equipped with CEMS.

Section 5.8.4 requires that for emissions monitoring pursuant to Sections 5.7.1 and 6.3.1 using a portable NO_x analyzer as part of an APCO approved Alternate Emissions Monitoring System, emission readings 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. The following condition is listed on the permits to ensure compliance.

Section 5.8.5 requires that for emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation of this rule, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply. If two (2) of three (3) runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. The following condition is listed on the permits to ensure compliance.

The following conditions are listed on the following permit to ensure compliance with this section:

Rule 4320	
Permit	Condition
S-4159-6-2	The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320]
	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]
	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]
	For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs, or District-approved alternative for PM10, 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]

Section 6.1 Recordkeeping

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.5 shall be maintained for five calendar years and shall be made available to the APCO and EPA upon request. Failure to maintain records or information

contained in the records that demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule.

The following condition is listed on the following permit to ensure compliance with this section:

Rule 4320	
Permit	Condition
S-4159-6-2	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]

Section 6.2, Test Methods

Section 6.2 identifies test methods to be used when determining compliance with the rule.

The following conditions are listed on the following permit to ensure compliance with this section:

Rule 4320	
Permit	Condition
S-4159-6-2	The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] N
	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]
	CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320]
	Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320]

Section 6.3, Compliance Testing

Section 6.3.1 requires that each unit subject to the requirements in Section 5.2 shall be source tested at least once every 12 months, except if two consecutive annual source tests demonstrate compliance, source testing may be performed every 36 months. If such a source test demonstrates non-compliance, source testing shall revert to every 12 months.

The following conditions are listed on the following permit to ensure compliance with this section:

Rule 4320	
Permit	Condition
S-4159-6-2	Source testing to measure NOx and CO emissions from this unit while fired on natural gas or propane shall be conducted at least once every twelve (12) months after initial source testing with that fuel type. 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] {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

Sections 6.3.2.1 through 6.3.2.7 address the requirements of group testing which is not proposed in this project. Therefore these sections are not applicable.

16. District Rule 4401 – Steam-Enhanced Crude Oil Production Wells

The purpose of this rule is to limit the VOC emissions from steam-enhanced crude oil production well vents. This rule is applicable to all steam-enhanced crude oil production wells and any associated vapor collection and control systems.

Section 3.0, Definitions

Section 3.20.2 defines leak as: the dripping of VOC-containing liquid or the detection of a concentration of total organic compound, above background, determined according to the test method specified in Section 6.3.3 that exceeds the values specified in Table 1, Section 3.20.2.1 and Section 3.20.2.2 of this rule. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere.

Type of Components	Major Gas Leak	Minor Gas Leak
1. PRDs	Greater than 10,000	400 to 10,000
2. Components other than PRDs	Greater than 10,000	2,000 to 10,000

Section 3.20.2.1 defines Major Liquid Leak as: a visible mist or a continuous flow of liquid that is not seal lubricant.

Section 3.20.2.2 defines Minor Liquid Leak as: a liquid leak, except seal lubricant, that is not a major liquid leak and drips liquid at a rate of more than three drops per minute.

Therefore, the following conditions are listed on ATC S-4159-7-4 to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401]
	A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401]

Section 4.0, Exemptions

Section 4.1 states that any steam-enhanced crude oil production well undergoing service or repair during the time the well is not producing is exempt from the emission control requirements of this rule. Therefore, the following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401]

Section 5.0, Requirements

Section 5.1 requires compliance with either 5.1.1 or 5.1.2.

Section 5.1.1 requires that the well vent be closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) be connected to a VOC collection and control system as defined in Section 3.0. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere.

Section 5.1.2 requires that the well vent be open and the well vent be connected to a VOC collection and control system. Therefore, the following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Each active steam-enhanced crude oil production well must comply with either of the following requirements: (1) The well vent is closed, and the front line production equipment downstream of the well carrying and storing produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or (2) The steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rules 2201 and 4401]

Section 3.50 defines the VOC collection and control system as “An APCO-approved system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system.”

Therefore, the following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Operator shall maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401]

Section 5.2 Determination of Compliance with the Leak Standards

Section 5.2.1 states that an operator is in violation of this rule if any District inspection demonstrates that one or more of the conditions in Section 5.2.2 exist at the facility or if any operator inspection conducted pursuant to Section 5.4 demonstrates that one or more of the conditions in Section 5.2.2 exist at the facility.

Section 5.2.2 Leak Standards

The following conditions shall be used for determination of violation during an inspection pursuant to the provisions of Section 5.2.1:

- 5.2.2.1 Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere.
- 5.2.2.2 Existence of a component with a major liquid leak as defined in Section 3.0.
- 5.2.2.3 Existence of a component with a gas leak greater than 50,000 ppmv.
- 5.2.2.4 Existence of a component leak described in Section 5.6.2.4.1 through Section 5.6.2.4.3 in excess of the allowable number of leaks specified in Table 3.
 - 5.2.2.4.1 A minor liquid leak, or
 - 5.2.2.4.2 A minor gas leak, or
 - 5.2.2.4.3 A gas leak greater than 10,000 ppmv up to 50,000 ppmv.

Table 3 Rule 4401 Number of Allowable Leaks	
Number of Steam-Enhanced Crude Oil Production Wells Connected to a VOC Collection and Control System	Number of Allowable Leaks
1 to 25	3
26 to 50	6
51 to 100	8
101 to 250	10
251 to 500	15
More than 500	One (1) for each 20 wells tested with a minimum of 50 wells tested.

In addition to the leak thresholds and allowances specified in Table 2, for the purposes of assessing NSR emissions, E & B has proposed to assess fugitive VOC emissions with CAPCOA Screening Value emission factors assuming no leaks in excess of 10,000 ppmv. Therefore, in consideration of how the NSR emissions are being assessed, any leak in excess of 10,000 ppmv (a "major gas leak" as defined in this rule) will be a violation.

The following condition will be listed on the ATC to ensure compliance with the leak standards of Rule 4401 and Rule 2201:

Rule 4401	
Permit	Condition
S-4159-7-4	During District or operator inspection, the following conditions are violations: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 10,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or minor gas leak in excess of the allowable number of leaks specified in Table 2 of Rule 4401. [District Rules 2201 and 4401]

Section 5.3.1 requires that an operator shall not use any component with a leak as defined in Section 3.0, or that is found to be in violation of the provisions of Section 5.2.2. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of this rule. Therefore, the following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	The operator shall not use any component with a leak except for components that have been found leaking in excess of the applicable leak standards may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401]

Section 5.3.2 requires that each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. Therefore, the following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401]

Section 5.3.3 requires that an operator shall comply with the requirements of Section 6.7, if there is any change in the description of major components or critical components. Section 6.7 requires that by January 30 of each year after 2008, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing approved Operator Management Plan (OMP). [District Rule 4401]

Section 5.4 Inspection and Re-inspection Requirements

Unless otherwise specified, an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3.

5.4.1 Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Except for pipes and unsafe-to-monitor components, the operator shall inspect all components for gas leaks at least once every year. The leak inspections and measurements of gas leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. [District Rule 4401]

5.4.2 An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of this rule.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401]

5.4.3 In addition to the inspections required by Section 5.4.1, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows:

5.4.3.1 An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Operator shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401]

5.4.3.2 Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of this rule.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401]

5.4.4 In addition to the inspections required by Section 5.4.1, Section 5.4.2 and Section 5.4.3, an operator shall perform the following inspections:

5.4.4.1 An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401]

5.4.4.2 An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401]

5.4.4.3 Except for PRDs subject to the requirements of Section 5.4.4.1, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401]

5.4.5 An operator shall inspect all unsafe-to-monitor components during each turnaround.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401]

5.4.6 A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator.

Section 5.5 Leak Repair Requirements

Section 5.5.1 requires an operator to affix a readily visible weatherproof tag to a leaking component upon detection of the leak. An operator shall include the following information on the tag:

- 1) The date and time of leak detection.
- 2) The date and time of leak measurement.
- 3) For a gaseous leak, the leak concentration in ppmv.
- 4) For a liquid leak, whether it is a major liquid leak or a minor liquid leak.
- 5) Whether the component is an essential component, an unsafe-to-monitor component, or a critical component.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) for a gaseous leak, the date and time of leak measurement; 3) leak concentration in ppmv; 4) for a liquid leak, description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401]

Section 5.5.2 requires an operator to keep the tag affixed to the component until an operator has met all of the following conditions:

- 1) Repaired or replaced the leaking component, and
- 2) Re-inspected the component using the test method in Section 6.3.3, and
- 3) The component is found to be in compliance with the requirements of this rule.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Operator shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401]

Section 5.5.3 requires an operator to minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401]

Section 5.5.4 states that except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the requirements of Section 5.5.4.1, Section 5.5.4.2, or Section 5.5.4.3 as soon as practicable but not later than the time period specified in Table 3.

- 5.5.4.1 Repair or replace the leaking component; or
- 5.5.4.2 Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or
- 5.5.4.3 Remove the leaking component from operation.

Table 3 Repair Period	
Type of Leak	Repair Period in Calendar Days
Gas Leaks	
Minor Gas Leak	14
Major Gas Leak less than or equal to 50,000 ppmv	5
Gas Leak greater than 50,000 ppmv	2
Liquid Leaks	
Minor Liquid Leak	3
Major Liquid Leak	2

The following conditions will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401]
	The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for major gas leaks greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401]

Section 5.5.5 requires that the leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3.

The following conditions will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 3 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401]

Section 5.5.6 requires that the time of the initial leak detection shall be the start of the repair period specified in Table 3.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401]

Section 5.5.7 requires that if the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401]

Section 6.0 Administrative Requirements

Section 6.1 Recordkeeping and Submissions

An operator shall maintain the records required by Section 6.1 and Section 6.2 for a period of five (5) years. These records shall be made available to the APCO, California Air Resources Board (ARB), and EPA upon request.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	All records required by this permit shall be maintained and retained on-site for a minimum of five (5) years and made available for District, ARB, and EPA inspection upon request. [District Rule 4401]

Section 6.1.1 requires the operator of any steam-enhanced crude oil production well to maintain records of the date and well identification where steam injection or well stimulation occurs.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Operator shall maintain records of the date and well identification where steam injection or well stimulation occurs, current list of all thermally enhanced production wells associated with this operation, the permit numbers of tanks receiving production from the TEOR operation. [District Rule 4401]

Section 6.1.3 states that the operator of any steam enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401]

Section 6.1.5 requires the operator to keep records of calibration of the portable hydrocarbon detector used for leak inspections:

The following condition will be listed on the ATs to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401]

Section 6.1.6 requires the operator to maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 (employee training program for component inspection and repair).

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401]

Section 6.1.7 requires an operator to keep a copy of the APCO-approved Operator Management Plan at the facility.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Operator shall keep a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401]

Section 6.1.8 requires an operator to keep a list of all gauge tanks, as defined in Section 3.17. Section 6.1.9 requires TVP testing of gauge tanks to show they have a TVP < 0.5 psia.

Since one of the criteria of being a gauge tank is to have been in operation before December 14, 2006, and the TEOR operation in this project are all new, Section 6.1.8 and 6.1.9 are not applicable.

Section 6.1.10 requires an operator that discovers that a PRD has released to record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	An operator that discovers that a pressure relief device (PRD) has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401

Section 6.2, Compliance Source Testing

Section 6.2.1 requires that an operator to source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature.

Section 6.2.2 states that the APCO may waive the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system where the control device is one of the following: (1) an internal combustion engine subject to Rule 4702; (2) a combustion device subject to Rule 4307, Rule 4308, or Rule 4320; or (3) a flare subject to Rule 4311.

The following conditions will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Except as otherwise provided in this permit, an operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401]
	The operator may submit a written request to waive the annual VOC control efficiency testing requirement for the VOC destruction device if the destruction device is (1) an internal combustion engine subject to Rule 4702; (2) a combustion device subject to Rule 4307, Rule 4308, or Rule 4320; or (3) a flare subject to Rule 4311. The APCO must approve the request of waiver in writing. [District Rule 4401]

Section 6.2.3 specifies TVP testing requirements for gauge tanks. As indicated above, there are no "gauge tanks" (i.e. gauge tanks installed and part of this TEOR system before Decemeber 14, 2006) in these TEOR systems; therefore, this section is not applicable.

Section 6.3, Test Methods

Section 6.3.1 specifies that 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.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401]

Sections 6.3.2 and 6.3.4 are not applicable to this project because no limit is being placed on the % VOC content of the TEOR gas.

Section 6.3.3 specifies that leak detection shall be performed with a portable hydrocarbon detection instrument in accordance with EPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Other than audio-visual leak inspections otherwise described in this permit, leak inspection and measurements of gaseous leak concentrations shall be conducted annually according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4311]

Section 6.4, Inspection Log

Section 6.4 requires an operator to maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed:

- 6.4.1 The total number of components inspected, and the total number and percentage of leaking components found by component type.
- 6.4.2 The location, type, and name or description of each leaking component and description of any unit where the leaking component is found.
- 6.4.3 The date of leak detection and the method of leak detection.
- 6.4.4 For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak.
- 6.4.5 The date of repair, replacement, or removal from operation of leaking components.

- 6.4.6 The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier.
- 6.4.7 The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier.
- 6.4.8 The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced.
- 6.4.9 The inspector's name, business mailing address, and business telephone number.
- 6.4.10 The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log.

The following condition will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	<p>The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log.</p> <p>[District Rule 4401]</p>

Section 6.5, Employee Training Program

Effective on and after January 1, 2009, an operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary.

The following condition (previously noted in Section 6.1.6) will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401]

Section 6.6, Operator Management Plan

Section 6.6 states that by June 30, 2008, an operator whose existing wells are subject to this rule or whose existing wells are exempt pursuant to Section 4.0 of this rule on or before December 14, 2006 shall prepare and submit an Operator Management Plan for approval by the APCO. An operator may use diagrams, charts, spreadsheets, or other methods approved by the APCO to describe the information required by Section 6.6.4 through Section 6.6.7 below. The Operator Management Plan shall include, at a minimum, all of the following information:

- 6.6.1 A description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt pursuant to Section 4.0 of this rule.
- 6.6.2 Identification and description of any known hazard that might affect the safety of an inspector.
- 6.6.3 Except for pipes, the number of components that are subject to this rule by component type.
- 6.6.4 Except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation.
- 6.6.5 Except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description).
- 6.6.6 Except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be described in the Operator Management Plan by grouping them functionally by process unit or facility description. The results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components

for which an exemption is being claimed pursuant to Sections 4.8 shall be submitted with the Operator Management Plan.

- 6.6.7 A detailed schedule of an operator’s inspections of components to be conducted as required by this rule and whether the operator inspections of components required by this rule will be performed by a qualified contractor or by an in-house team.
- 6.6.8 A description of the training standards for personnel that inspect and repair components.
- 6.6.9 A description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary.

Section 6.7 states that by January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan.

Section 6.8 states that the APCO shall provide written notice to the operator of the approval or incompleteness of a new or revised Operator Management Plan within 60 days of receiving such Operator Management Plan. If the APCO fails to respond in writing within 60 days after the date of receiving the Operator Management Plan, it shall be deemed approved. No provision of the Operator Management Plan, approved or not, shall conflict with or take precedence over any provision of this rule.

Therefore, the following conditions will be listed on the ATC to ensure compliance:

Rule 4401	
Permit	Condition
S-4159-7-4	By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401]
	The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401]

Section 7.0, Compliance Schedule

Section 7.0 establishes the compliance schedule requirements for existing and new steam-enhanced crude oil production wells. These are new steam-enhanced crude oil production wells and will be operating in compliance with the requirements of this rule. Therefore, no further discussion is required.

Conditions will be incorporated into the permit in order to ensure compliance with each section of this rule. Therefore, compliance with District Rule 4401 requirements is expected.

17. District Rule 4623 – Storage of Organic Liquids

The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids. This rule applies to any tank with a design capacity of 1,100 gallons or greater used to store organic liquid.

Pursuant to Section 4.3 except for complying with Sections 6.3.4 and 7.2, a small producer's tank with a throughput of 50 barrels of crude oil per day or less is exempt from the requirements of this rule. All other small producer tanks that do not qualify for exemption under Section 4.4 shall comply with all the requirements of this rule.

Pursuant to Section 4.4, tanks exclusively receiving and/or storing an organic liquid with a TVP less than 0.5 psia, are exempt from all other requirements of the rule except for complying with the following provisions:

- TVP and API Gravity Testing provisions pursuant to Section 6.2,
- Recordkeeping provisions pursuant to Section 6.3.6,
- Test Methods provisions pursuant to Section 6.4, and
- Compliance schedules pursuant to Section 7.2.

Pursuant to section 6.2, an operator shall conduct a TVP testing of each uncontrolled fixed roof 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 each tank.

Pursuant to Section 6.3.6, an operator shall submit the records of TVP and API gravity testing conducted in accordance with the requirements of Section 6.2 to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. An operator who uses the information in Appendix A to demonstrate the TVP and/or API gravity of the stored organic liquid shall submit information to the APCO within 45 days after the date that the type of organic liquid stored in the tank has been determined.

Pursuant to Section 6.4, the following test methods shall be used, unless otherwise approved by the APCO and the United States Environmental Protection Agency (US EPA):

- The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287-92 (2000) 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 4057-95 "Standard

Practices for Manual Sampling of Petroleum and Petroleum Products”.

- 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 US EPA, shall be used to determine the TVP of crude oil with an API gravity of 26° or less, or for any API gravity that is specified in this test method.

Tanks S-4159-1, '2, '4, '5 and '8 have a 0.5 psia TVP limit and have the following conditions which are required to ensure compliance with sections 6.3.6, 6.4 and 7.2.

Tanks	
Permit	Condition
S-4159-1-2, '2-3, '4-4, '5-2 and '8-2	This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] N
	Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
	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]
	For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
	The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
	Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]

Tanks	
Permit	Condition
	The permittee shall keep accurate records of each organic liquid stored in the tank, including its TVP and API gravity. [District Rule 4623]
	All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

Tank S-4159-3 was previously owned by a Small Producer (pursuant to the section 3.29 definition) and enjoyed the 50 bbl/day exemption pursuant to section 4.3. Seneca is not a small producer and; therefore, S-4159-3 can no longer enjoy the 50 bbl/day exemption. Therefore, pursuant the applicant's request, the above conditions will be added to the permit for compliance with section 4.4.

18. District Rule 4801 – Sulfur Compounds

This rule limits the emissions of sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO2), on a dry basis averaged over 15 consecutive minutes.

The rule has been submitted to the EPA to replace County Rule 407 (Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin counties) which is contained in the SIP. District Rule 4801 is as stringent as County Rule 407, as shown on the following table:

Comparison of District Rule 4801 to County Rule 407		
REQUIREMENTS	District Rule 4801	County Rule 407
A person shall not discharge into the atmosphere sulfur compounds exceeding in concentration at the point of discharge 0.2 percent by volume calculated as sulfur dioxide on a dry basis averaged over 15 consecutive minutes.	✓	✓
EPA Method 8 and ARB Method 1-100 shall be used to determine such emissions.	✓	

Unit S-4159-6 is subject to this rule.

Steam generator S-4159-6's SOx emissions are limited 0.0164 lb-SOx/MMBtu which is equivalent to a sulfur concentration of 0.0011%. Therefore, compliance with this rule is ensured with the following conditions:

S-4159-6-2
19.0 MMBTU/HR NATURAL GAS/PROPANE-FIRED STEAM GENERATOR WITH GIDEON MODEL MGW-25R1 ULTRA LOW NOX BURNER
The unit shall only be fired on PUC-regulated quality natural gas, propane, or a combination thereof. [District Rules 2201, 4320 and 4801]
This steam generator is not authorized to incinerate casing gas. [District Rules 2201, 4320 and 4801]
Emissions from the natural gas/propane-fired unit shall not exceed any of the following limits: 9 ppmvd NOx @ 3% O2 or 0.0.011 lb-NOx/MMBtu, 0.0164 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 35 ppmvd CO @ 3% O2 or 0.026 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, 4320 and 4801]

19. District Rule 8011 – General Requirements

The purpose of Regulation VIII (Fugitive PM₁₀ Prohibitions) is to reduce ambient concentrations of fine particulate matter (PM₁₀) by requiring actions to prevent, reduce, or mitigate anthropogenic fugitive dust emissions. The Rules contained in this Regulation have been developed pursuant to United States Environmental Protection Agency guidance for Serious PM₁₀ Nonattainment Areas. The rules are applicable to specified anthropogenic fugitive dust sources. Fugitive dust contains PM₁₀ and particles larger than PM₁₀. Controlling fugitive dust emissions when visible emissions are detected will not prevent all PM₁₀ emissions, but will substantially reduce PM₁₀ emissions.

The provisions of this rule are applicable to specified outdoor fugitive dust sources. The definitions, exemptions, requirements, administrative requirements, recordkeeping requirements, and test methods set forth in this rule are applicable to all Rules under Regulation VIII (Fugitive PM₁₀ Prohibitions) of the Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District.

The following facility-wide conditions ensure compliance with these requirements:

S-4159-0-1
Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8021 and 8011]
Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8031 and 8011]

S-4159-0-1
An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8041 and 8011]
Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8051 and 8011]
Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8061 and 8011]
Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rules 8071 and 8011]

20. District Rule 8021 – Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities

The purpose of this rule is to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities.

This rule applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads to and from the site. This rule also applies to the construction of new landfill disposal sites or modification to existing landfill disposal sites prior to commencement of landfilling activities.

Section 5.0 requires that no person shall perform any construction, demolition, excavation, extraction, or other earthmoving activities unless the appropriate requirements in sections 5.1 and 5.2 are sufficiently implemented to limit Visible Dust Emissions (VDE) to 20% opacity or less. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

The following facility-wide condition ensures compliance with these requirements:

S-4159-0-1

Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8021 and 8011]

21. District Rule 8031 – Bulk Materials

The purpose of this rule is to limit fugitive dust emissions from the outdoor handling, storage, and transport of bulk materials. This rule applies to the outdoor handling, storage, and transport of any bulk material.

Section 5.0 requires that no person shall perform any outdoor handling, storage, and transport of bulk materials unless the appropriate requirements in Table 8031-1 of this rule are sufficiently implemented to limit Visible Dust Emissions (VDE) to 20% opacity or less or to comply with the conditions for a stabilized surface as defined in Rule 8011. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

Section 4.5 exempts agricultural sources subject to, or specifically exempt from, the requirements of Rule 8081 (Agricultural Sources) from the requirements of this rule. Section 3.1 of District Rule 8011 defines an agricultural source as "any activity or portion of land associated with the commercial growing of crops or the raising of fowl or animals." Since this facility is an agricultural source subject to the requirements of Rule 8081 (Agricultural Sources), it is exempt from the requirements of this rule.

The following facility-wide condition ensures compliance with these requirements:

S-4159-0-1

Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8031 and 8011]

22. District Rule 8041 – Carryout and Trackout

The purpose of this rule is to limit fugitive dust emissions from carryout and trackout. This rule applies to all sites that are subject to Rules 8021 (Construction, Demolition, Excavation, Extraction, and other Earthmoving Activities), 8031 (Bulk Materials), and 8071 (Unpaved Vehicle and Equipment Traffic Areas) where carryout or trackout has occurred or may occur.

Section 5.0 requires that the owner or operator shall sufficiently prevent or cleanup carryout and trackout as specified in sections 5.1 through 5.8. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII. The use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from paved public roads does not exempt an owner or operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.

Section 4.1 exempts carryout and trackout caused by an Agricultural Source from the requirements of this rule. Section 3.1 of District Rule 8011 defines an agricultural source as "any activity or portion of land associated with the commercial growing of crops or the raising of fowl or animals." Since this facility is an agricultural source, carryout and trackout from this facility is exempt from the requirements of this rule.

The following facility-wide condition ensures compliance with these requirements:

S-4159-0-1

An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8041 and 8011]

23. District Rule 8051 – Open Areas

The purpose of this rule is to limit fugitive dust emissions from open areas. This rule applies to any open area having 3.0 acres or more of disturbed surface area that has remained undeveloped, unoccupied, unused, or vacant for more than seven days.

Section 5.0 requires that whenever open areas are disturbed or vehicles are used in open areas, the owner or operator shall implement one or more of the control measures indicated in Table 8051-1 to comply with the conditions of a stabilized surface at all times and to limit Visible Dust Emissions (VDE) to 20% opacity. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

The following facility-wide condition ensures compliance with these requirements:

S-4159-0-1

Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8051 and 8011]

24. District Rule 8061 – Paved and Unpaved Roads

The purpose of this rule is to limit fugitive dust emissions from paved and unpaved roads by implementing control measures and design criteria. This rule applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.

Section 4.3 exempts agricultural sources subject to, or specifically exempt from, the requirements of Rule 8081 (Agricultural Sources) from the requirements of this rule. Section 3.1 of District Rule 8011 defines an agricultural source as “any activity or portion of land associated with the commercial growing of crops or the raising of fowl or animals.” Since this facility is an agricultural source subject to the requirements of Rule 8081 (Agricultural Sources), it is exempt from the requirements of this rule.

The following facility-wide condition ensures compliance with these requirements:

S-4159-0-1
Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8061 and 8011]

25. District Rule 8071 – Unpaved Vehicle/Equipment Traffic Area

The purpose of this rule is to limit fugitive dust emissions from unpaved vehicle and equipment traffic areas by implementing control measures and design criteria. This rule applies to any unpaved vehicle/equipment traffic area of 1.0 acre or larger.

Section 4.2 exempts agricultural sources subject to, or specifically exempt from, the requirements of Rule 8081 (Agricultural Sources) from the requirements of this rule. Section 3.1 of District Rule 8011 defines an agricultural source as “any activity or portion of land associated with the commercial growing of crops or the raising of fowl or animals.” Since this facility is an agricultural source subject to the requirements of Rule 8081 (Agricultural Sources), it is exempt from the requirements of this rule.

The following facility-wide condition ensures compliance with these requirements:

S-4159-0-1

Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rules 8071 and 8011]

26. 40 CFR Part 60 Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60, Subpart Dc applies to Small Industrial-Commercial-Institutional Steam Generators between 10 MMBtu/hr and 100 MMBtu/hr (post-6/9/89 construction, modification or, reconstruction). Subpart Dc has standards for SO_x and PM₁₀. The facility's steam generator (S-4159-6) is subject to Subpart Dc requirements.

60.42c – Standards for Sulfur Dioxide

Since coal is not combusted by the steam generator in this facility, the requirements of this section are not applicable.

60.43c – Standards for Particulate Matter

The steam generator in this facility is not fired on coal, combust mixtures of coal with other fuels, combust wood, combust mixtures of wood with other fuels, or oil; therefore, it will not be subject to the requirements of this section.

60.44c – Compliance and Performance Tests Methods and Procedures for Sulfur Dioxide.

Since the steam generator in this facility is not subject to the sulfur dioxide requirements of this subpart, no testing to show compliance is required. Therefore, the requirements of this section are not applicable to the steam generator in this facility.

60.45c – Compliance and Performance Test Methods and Procedures for Particulate Matter

Since the steam generator in this facility is not subject to the particulate matter requirements of this subpart, no testing to show compliance is required. Therefore, the requirements of this section are not applicable to the steam generator in this facility.

60.46c – Emission Monitoring for Sulfur Dioxide

Since the steam generator in this facility is not subject to the sulfur dioxide requirements of this subpart, no monitoring is required. Therefore, the requirements of this section is not applicable to the steam generator in this facility.

60.47c – Emission Monitoring for Particulate Matter

Since the steam generator in this facility is not subject to the particulate matter requirements of this subpart, no monitoring is required. Therefore, the requirements of this section is not applicable to the steam generator in this facility.

60.48c – Reporting and Recordingkeeping Requirements

Section 60.48c (a) states that the owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part.

The facility's steam generator is existing; therefore, this section does not apply.

Section 60.48c (g) states that the owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day. The following conditions will be included on the facility's steam generator permit to ensure compliance with this section.

- A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [District Rule 2201 and 40 CFR 60.48c (g)]
- Permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [District Rule 2201 and 40 CFR 60.48c (g)]

Section 60.48c (i) states that all records required under this section shall be maintained by the owner or operator of the affected facility for a period of two

years following the date of such record. District Rule 4320 requires that records be kept for five years. Compliance is ensured with the following condition:

- All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, 4320, and 40 CFR 60.48c (i)]

Therefore, compliance with this regulation is expected

27. 40 CFR 61, Subpart M – National Emission Standard for Asbestos

There are applicable requirements from the National Emissions Standards for Hazardous Air Pollutants that apply to all sources in general. The requirements of this subpart pertain to asbestos removal and disposal from renovated or demolished structures.

The following facility-wide condition ensures compliance with these requirements:

S-4159-0-1
Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M]

28. 40 CFR Part 64 – Compliance Assurance Monitoring

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

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

For oilfield tanks, CAM is required if an emission unit is subject to an emission limit or standard for the pollutant of concern (VOC), uses a control device to comply with the emission limit or standard, and has a pre-control PE greater than 10 tons/year.

While most tanks and wells are equipped with vapor control systems, include an emission limit or standard, and have uncontrolled potential to emit greater than 10 tons/year, the District has concluded that these units are not subject to CAM because the vapor control systems in

question do not meet the criteria for add-on control devices as defined in 40 CFR part 64.

The definition of control device from 40 CFR Part 64 is as follows (emphasis added):

Control device means equipment, other than inherent process equipment, that is used to destroy or remove air pollutant(s) prior to discharge to the atmosphere. The types of equipment that may commonly be used as control devices include, but are not limited to, fabric filters, mechanical collectors, electrostatic precipitators, inertial separators, afterburners, thermal or catalytic incinerators, adsorption devices (such as carbon beds), condensers, scrubbers (such as wet collection and gas absorption devices), selective catalytic or non-catalytic reduction systems, flue gas recirculation systems, spray dryers, spray towers, mist eliminators, acid plants, sulfur recovery plants, injection systems (such as water, steam, ammonia, sorbent or limestone injection), and combustion devices independent of the particular process being conducted at an emissions unit (e.g., the destruction of emissions achieved by venting process emission streams to flares, boilers or process heaters). For purposes of this part, a control device does not include passive control measures that act to prevent pollutants from forming, such as the use of seals, lids, or roofs to prevent the release of pollutants, use of low-polluting fuel or feedstocks, or the use of combustion or other process design features or characteristics. If an applicable requirement establishes that particular equipment which otherwise meets this definition of a control device does not constitute a control device as applied to a particular pollutant-specific emissions unit, then that definition shall be binding for purposes of this part.

It is important to note that this definition includes an exemption for "inherent process equipment". Inherent process equipment is by definition not a control device. Emission units equipped with inherent process equipment are not subject to the requirements of CAM.

40 CFR Part 64 defines inherent process equipment as (emphasis added):

Inherent process equipment means equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations. Equipment that must be operated at an efficiency higher than that achieved during normal process operations in order to comply with the applicable emission limitation or standard is not inherent process equipment. For the purposes of this part, inherent process equipment is not considered a control device.

Please note that the above definition requires that inherent process equipment must be used "... for the proper or safe operation of the process ...". It is important to note that the equipment need not be used solely for the proper or safe operation of the process. Such systems could be used for compliance with regulations as well.

The District has concluded that vapor control systems installed on oilfield tanks and oil production wells are inherent process equipment (and by definition not a control device) for the reasons stated below:

- Tank and well vapor control systems reduce emission of H₂S (a toxic substance) from the tanks/wells and as such assure worker safety for OSHA and other regulatory requirements.
- Tank vapor control systems minimize air intrusion into the vapor space and as such reduces corrosion of the tank interior. Such systems are commonly installed even though they are not required to comply with District regulations. District Rule 4623 – Storage of Organic Liquids does not require vapor control on storage tanks storing liquids with a true vapor pressure of less than 0.5 psia. Due to the relatively low actual emissions from such tanks, vapor control is typically not a Rule 2201 best available control technology (BACT) requirement for most heavy crude oil storage tanks. Even though not required by District rules, facilities commonly install vapor control on storage tanks for safety and corrosion prevention purposes.
- As stated above, facilities commonly install vapor control on tanks even though there is not an requirement to do so. Vapor control has historically been installed on crude oil production well vents as well prior to the requirement to install such controls. In fact, the District has issued emission reduction credits for the installation of well vent vapor control systems.
- Vapors collected by tank and well vapor control systems are commonly burned in multiple existing units, e.g. steam generators, in which useful energy is recovered. Steam generators, are used in oil production to enhance oil recovery from production wells. The steam generators, wells and tanks (with their associated vapor control systems) are part of the overall process to thermally enhance oil production.

Such systems typically distribute the vapors to multiple steam generators (or other devices) for use as a fuel. The quantity of vapors from such vapor control systems combusted in a particular steam generator varies as the operational needs of the facility change. For example, vapors that are typically combusted in a given steam generator will be combusted in a different approved steam generator instead if the first steam generator is taken out of service.

For all of the reasons stated above, the District believes that oil production tank and well vapor control systems are truly "inherent process systems", and therefore cannot be considered add-on control devices for the purposes of CAM applicability.

As explained above, the facility's tanks and thermally enhanced oil recovery (TEOR) operation are not required to have CAM.

Steam generator S-4159-6 does not have add-on control. Therefore, it is not required to have CAM.

TEOR operation S-4159-7's flare is a control device; therefore, it is not subject to CAM.

Therefore, the facility's equipment is not subject to CAM.

29. 40 CFR 82, Subparts B and F – Stratospheric Ozone

There are applicable requirements from Title VI of the CAA (Stratospheric Ozone) that apply to all sources in general. These requirements pertain to air conditioners, chillers, and refrigerators located at a Title V source and to disposal of air conditioners or maintenance/recharging/disposal of motor vehicle air conditioners (MVAC).

The following facility-wide condition ensures compliance with these requirements:

S-4159-0-1
If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F]
If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B]

X. PERMIT SHIELD

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

A. Requirements Addressed by Model General Permit Templates

The applicant has not requested to utilize any model general permit templates.

B. Requirements not Addressed by Model General Permit Templates

The applicant has not requested a permit shield for any requirements not addressed by model general permit templates.

XI. PERMIT CONDITIONS

See draft operating permit beginning on the following page.

Attachment A

DRAFT TITLE V PERMITS

San Joaquin Valley Air Pollution Control District

FACILITY: S-4159-0-1

EXPIRATION DATE: 07/31/2020

FACILITY-WIDE REQUIREMENTS

1. {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. {4365} Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: SENECA RESOURCES CORP

Location: HEAVY OIL WESTERN

S-4159-0-1 : Jan 22 2016 8:33AM - TORID

9. {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
11. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. {4374} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. {4377} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit

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

22. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
23. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
25. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
26. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
27. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
29. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
30. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8031] Federally Enforceable Through Title V Permit
31. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8041] Federally Enforceable Through Title V Permit
32. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit
33. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit

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

34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
35. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin xx/xx of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
42. All records shall be retained on-site for a period of at least five (5) years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
43. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-1-2

EXPIRATION DATE: 07/31/2020

SECTION: NW7 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,500 BBL FIXED ROOF CRUDE OIL STORAGE TANK #13857

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
2. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. Permittee shall keep monthly records of the average daily oil throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC emissions from this tank shall not exceed 5.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
5. 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
6. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
8. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The permittee shall keep accurate records of each organic liquid stored in the tank, including its TVP and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-2-3

EXPIRATION DATE: 07/31/2020

SECTION: NW7 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,500 BBL FIXED ROOF CONSTANT LEVEL CRUDE OIL TANK #135775

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
2. Tank shall operate only at constant level. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC emissions from tank shall not exceed 2.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
5. 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
6. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
8. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The permittee shall keep accurate records of each organic liquid stored in the tank, including TVP and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-3-1

EXPIRATION DATE: 07/31/2020

SECTION: NW7 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,500 BBL FIXED ROOF CRUDE OIL STORAGE TANK #13858

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its TVP and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-4-4

EXPIRATION DATE: 07/31/2020

SECTION: NW 7 TOWNSHIP: 11N RANGE: 23W

EQUIPMENT DESCRIPTION:

1,500 BBL FWKO WITH A 125,000 BTU/HR HIRT-TYPE VAPOR INCINERATOR WITH LPG PILOT FUEL AND ASSOCIATED CONTROLS AND VAPOR PIPING SHARED WITH PERMIT UNITS S-4159-5, -8 AND -9

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 2000 ppmv as SO₂. [District Rule 4801] Federally Enforceable Through Title V Permit
3. Emissions from the vapor incinerator unit shall not exceed any of the following limits: 0.01 lb-NO_x/MMBtu, 0.0164 lb-SO_x/MMBtu, 0.0077 lb-PM₁₀/MMBtu, 0.082 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC emission rate from vapor service components associated with the FWKO and vapor control system shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. FWKO shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
7. 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
8. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from the FWKO and vapor control system 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 (<10,000 ppmv) Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
12. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with FWKO. [District Rule 2201] Federally Enforceable Through Title V Permit
13. This permit authorizes FWKO cleaning, that is not the result of breakdowns or poor maintenance, as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Permittee shall maintain records of annual FWKO inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 2080] Federally Enforceable Through Title V Permit
16. The permittee shall keep accurate records of each organic liquid stored in the tank, including its TVP and API gravity. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit
17. Permittee shall maintain a record of the total fugitive component count, and calculated fugitive VOC emissions for a period of five years and make such records available for District inspection upon request. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-5-2

EXPIRATION DATE: 07/31/2020

EQUIPMENT DESCRIPTION:

2000 BBL FIXED ROOF CRUDE OIL STORAGE TANK CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-4159-4

PERMIT UNIT REQUIREMENTS

1. VOC emission rate from vapor service components associated with tank shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank 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 (<10,000 ppmv) Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
3. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
5. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
10. The permittee shall keep accurate records of each organic liquid stored in the tank, including its TVP and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
11. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rules 2020 and 2080] 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.

12. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rules 2020 and 2080] Federally Enforceable Through Title V Permit
13. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rules 2020 and 2080] Federally Enforceable Through Title V Permit
14. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-6-2

EXPIRATION DATE: 07/31/2020

EQUIPMENT DESCRIPTION:

19.0 MMBTU/HR NATURAL GAS/PROPANE-FIRED STEAM GENERATOR WITH GIDEON MODEL MGW-25R1 ULTRA LOW NOX BURNER

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [District Rule 2201 and 40 CFR 60.48c (g)] Federally Enforceable Through Title V Permit
8. 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
9. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. The unit shall only be fired on PUC-regulated quality natural gas, propane, or a combination thereof. [District Rules 2201, 4320 and 4801] Federally Enforceable Through Title V Permit
11. This steam generator is not authorized to incinerate casing gas. [District Rules 2201, 4320 and 4801] Federally Enforceable Through Title V Permit
12. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] 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.

13. Emissions from the natural gas/propane-fired unit shall not exceed any of the following limits: 9 ppmvd NO_x @ 3% O₂ or 0.011 lb-NO_x/MMBtu, 0.0164 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, 35 ppmvd CO @ 3% O₂ or 0.026 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, 4320 and 4801] Federally Enforceable Through Title V Permit
14. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. 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
15. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
16. 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
17. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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
18. 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
19. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas or propane shall be conducted within 60 days of initiating combustion of each fuel type. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
20. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas or propane shall be conducted at least once every twelve (12) months after initial source testing with that fuel type. 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
21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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
23. 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
24. 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. Permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [District Rule 2201 and 40 CFR 60.48c (g)] Federally Enforceable Through Title V Permit
29. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, 4320, and 40 CFR 60.48c (i)] Federally Enforceable Through Title V Permit

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

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-7-4

EXPIRATION DATE: 07/31/2020

SECTION: NW7 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 40 STEAM ENHANCED WELLS WITH OPEN CASING VENTS SERVED BY VAPOR CONTROL SYSTEM INCLUDING COMPRESSOR(S), GAS/LIQUID SEPARATOR, AND 10.4 MMBTU/HR FLARE

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. TEOR wells shall be authorized to operate with open or closed casing vents. [District Rule 2201 and 4401] Federally Enforceable Through Title V Permit
3. Vapors from TEOR wells operated with open casing vents shall be sent to only to vapor control system served by 10.4 MMBtu/hr flare. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Leaks exceeding an instrument reading of 10,000 ppmv are a violation of this permit. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit
5. Fugitive VOC emissions from TEOR operation shall not exceed 1.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This permit shall not authorize the utilization of any IC engine, or other combustion device requiring a separate permit, for powering the air assist to the flare. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Flare shall be equipped with air assist which shall be utilized when needed to maintain visible emissions below Ringlemann 1/4 and 5% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. A flame shall be present at all times when combustible gases are vented through this flare. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Sulfur concentration of gas combusted in flare shall not exceed 2.66 gr S/100 scf (45 ppmv H₂S). [District Rule 2201] Federally Enforceable Through Title V Permit
11. Flare shall be equipped with total gas volume flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Maximum amount of gas combusted shall not exceed 250 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Maximum amount of gas combusted shall not exceed 91,250 MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NO_x (as NO₂): 0.068lb/MMBtu; PM₁₀: 0.008 lb/MMBtu; CO: 0.37 lb/MMBtu; or VOC: 0.063 lb/MMBtu. [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.

15. Permittee shall measure the sulfur content of the gas combusted by District witnessed, or authorized, sample collection by ARB certified testing laboratory at startup and annually thereafter or upon change of source of flared gas. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 1081, 7.2 and 2201] Federally Enforceable Through Title V Permit
16. The sulfur content of the combusted gas shall be determined using ASTM test methods D-1072, D-3246, D-6228, or double GC for H₂S and Mercaptans. H₂S concentration (ppmv) of the gas shall be determined using ASTM test methods D-1072 or D-4084, using Draeger tube, or by gas supplier test data consistent with the natural gas fuel sulfur content test method listed in this permit. [District Rule 1081] Federally Enforceable Through Title V Permit
17. The higher heating value of the flared gas shall be monitored at least quarterly or upon change of source of flared gas. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201] Federally Enforceable Through Title V Permit
19. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401] Federally Enforceable Through Title V Permit
20. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401] Federally Enforceable Through Title V Permit
21. During the time any steam-enhanced crude oil production well is not producing, while undergoing service or repair (a well shall be considered under service or repair during rig-up, operation, and rig-down of any rig or pulling unit used to repair or maintain surface or downhole well equipment) it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401] Federally Enforceable Through Title V Permit
22. Each active steam-enhanced crude oil production well must comply with either of the following requirements: (1) The well vent is closed, and the front line production equipment downstream of the well carrying and storing produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or (2) The steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit
23. Operator shall maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit
24. During District or operator inspection, the following conditions are violations: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 10,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or minor gas leak in excess of the allowable number of leaks specified in Table 2 of Rule 4401. [District Rules 2201 and 4401] 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.

25. The operator shall not use any component with a leak except for components that have been found leaking in excess of the applicable leak standards may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401] Federally Enforceable Through Title V Permit
26. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.7.2] Federally Enforceable Through Title V Permit
27. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing approved Operator Management Plan (OMP). [District Rule 4401] Federally Enforceable Through Title V Permit
28. Except for pipes and unsafe-to-monitor components, the operator shall inspect all components for gas leaks at least once every year. The leak inspections and measurements of gas leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. [District Rule 4401] Federally Enforceable Through Title V Permit
29. Operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
30. Operator shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401] Federally Enforceable Through Title V Permit
31. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
32. Operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401] Federally Enforceable Through Title V Permit
33. Operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401] Federally Enforceable Through Title V Permit
34. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401] Federally Enforceable Through Title V Permit
35. Operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401] Federally Enforceable Through Title V Permit
36. Operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) for a gaseous leak, the date and time of leak measurement; 3) leak concentration in ppmv; 4) for a liquid leak, description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401] Federally Enforceable Through Title V Permit
37. Operator shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401] 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.

38. Operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401] Federally Enforceable Through Title V Permit
39. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401] Federally Enforceable Through Title V Permit
40. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for major gas leaks greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401] Federally Enforceable Through Title V Permit
41. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 3 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
42. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
43. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401 5.9.7] Federally Enforceable Through Title V Permit
44. Except as otherwise provided in this permit, an operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401] Federally Enforceable Through Title V Permit
45. The operator may submit a written request to waive the annual VOC control efficiency testing requirement for the VOC destruction device if the destruction device is (1) an internal combustion engine subject to Rule 4702; (2) a combustion device subject to Rule 4307, Rule 4308, or Rule 4320; or (3) a flare subject to Rule 4311. The APCO must approve the request of waiver in writing. [District Rule 4401] Federally Enforceable Through Title V Permit
46. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401] Federally Enforceable Through Title V Permit
47. Other than audio-visual leak inspections otherwise described in this permit, leak inspection and measurements of gaseous leak concentrations shall be conducted annually according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

48. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401] Federally Enforceable Through Title V Permit
49. Operator shall maintain records of the date and well identification where steam injection or well stimulation occurs, current list of all thermally enhanced production wells associated with this operation, the permit numbers of tanks receiving production from the TEOR operation [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit
50. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401 [District Rule 4401] Federally Enforceable Through Title V Permit
51. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401] Federally Enforceable Through Title V Permit
52. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401] Federally Enforceable Through Title V Permit
53. Operator shall keep a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401] Federally Enforceable Through Title V Permit
54. An operator that discovers that a pressure relief device (PRD) has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401] Federally Enforceable Through Title V Permit
55. Permittee shall keep accurate records of daily and annual heat input to the flare in MMBtu/day and MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
56. All records required by this permit shall be maintained and retained on-site for a minimum of five (5) years and made available for District, ARB, and EPA inspection upon request. [District Rules 1070 and 4401] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-8-2

EXPIRATION DATE: 07/31/2020

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF CRUDE OIL GAUGE TANK CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-4159-4

PERMIT UNIT REQUIREMENTS

1. VOC emission rate from vapor service components associated with the tank shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
3. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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
5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its TVP and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from the tank 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 (<10,000 ppmv) Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
10. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201] Federally Enforceable Through Title V Permit
11. This permit authorizes tank cleaning, that is not the result of breakdowns or poor maintenance, as a routine maintenance activity. [District Rules 2020 and 2080] 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.

12. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rules 2020 and 2080] Federally Enforceable Through Title V Permit
13. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rules 2020 and 2080] Federally Enforceable Through Title V Permit
14. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-9-1

EXPIRATION DATE: 07/31/2020

SECTION: NW S7 TOWNSHIP: 11N RANGE: 23W

EQUIPMENT DESCRIPTION:

2,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK CONNECTED TO THE VAPOR RECOVERY CONTROL SYSTEM LISTED ON S-4159-4 (HOYT LEASE)

PERMIT UNIT REQUIREMENTS

1. VOC emission rate from vapor service components associated with the tank shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
3. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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
5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This permit authorizes tank cleaning, that is not the result of breakdowns or poor maintenance, as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 2080] 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.

12. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from the tank 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 (<10,000 ppmv) Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The permittee shall keep accurate records of each organic liquid stored in the tank, including its TVP and API gravity. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit
14. All records shall be maintained for a period of at least five years and made available for District inspection upon request. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit

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

DRAFT

Attachment B

Current Permit to Operate

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-1-1

EXPIRATION DATE: 07/31/2020

SECTION: NW7 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,500 BBL FIXED ROOF CRUDE OIL STORAGE TANK #13857

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
2. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. Permittee shall keep monthly records of the average daily oil throughput. [District Rule 2201]
3. VOC emissions from this tank shall not exceed 5.2 lb/day. [District Rule 2201]
4. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
5. 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]
6. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
8. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
9. The permittee shall keep accurate records of each organic liquid stored in the tank, including its TVP and API gravity. [District Rule 4623]
10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-2-2

EXPIRATION DATE: 07/31/2020

SECTION: NW7 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,500 BBL FIXED ROOF CONSTANT LEVEL CRUDE OIL TANK #135775

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
2. Tank shall operate only at constant level. [District Rule 2201]
3. VOC emissions from tank shall not exceed 2.7 lb/day. [District Rule 2201]
4. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
5. 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]
6. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
8. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
9. The permittee shall keep accurate records of each organic liquid stored in the tank, including TVP and API gravity. [District Rule 4623]
10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-3-0

EXPIRATION DATE: 07/31/2020

SECTION: NW7 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,500 BBL FIXED ROOF CRUDE OIL STORAGE TANK #13858

PERMIT UNIT REQUIREMENTS

1. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 4623]
2. Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [District Rule 4623]
3. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-4-3

EXPIRATION DATE: 07/31/2020

SECTION: NW 7 TOWNSHIP: 11N RANGE: 23W

EQUIPMENT DESCRIPTION:

1,500 BBL FWKO WITH A 125,000 BTU/HR HIRT-TYPE VAPOR INCINERATOR WITH LPG PILOT FUEL AND ASSOCIATED CONTROLS AND VAPOR PIPING SHARED WITH PERMIT UNITS S-4159-5, -8 AND -9

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Sulfur compound emissions shall not exceed 2000 ppmv as SO₂. [District Rule 4801]
5. Emissions from the vapor incinerator unit shall not exceed any of the following limits: 0.01 lb-NO_x/MMBtu, 0.0164 lb-SO_x/MMBtu, 0.0077 lb-PM₁₀/MMBtu, 0.082 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rule 2201]
6. VOC emission rate from vapor service components associated with the FWKO and vapor control system shall not exceed 0.3 lb/day. [District Rule 2201]
7. FWKO shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
8. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
9. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
10. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
11. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
12. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
13. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from the FWKO and vapor control system 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 (<10,000 ppmv) Emission Factors. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with FWKO. [District Rule 2201]
15. This permit authorizes FWKO cleaning, that is not the result of breakdowns or poor maintenance, as a routine maintenance activity. [District Rule 2080]
16. Permittee shall maintain records of annual FWKO inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 2080]
17. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 2080]
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its TVP and API gravity. [District Rules 1070 and 4623]
19. Permittee shall maintain a record of the total fugitive component count, and calculated fugitive VOC emissions for a period of five years and make such records available for District inspection upon request. [District Rules 1070 and 4623]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-5-1

EXPIRATION DATE: 07/31/2020

EQUIPMENT DESCRIPTION:

2000 BBL FIXED ROOF CRUDE OIL STORAGE TANK CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-4159-4

PERMIT UNIT REQUIREMENTS

1. This ATC shall be implemented concurrent with or subsequent to ATC S-4159-4-0. [District Rule 2201]
2. This ATC shall cancel and replace ATC S-4159-5-0. [District Rule 2201]
3. VOC emission rate from vapor service components associated with tank shall not exceed 0.1 lb/day. [District Rule 2201]
4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank 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 (<10,000 ppmv) Emission Factors. [District Rule 2201]
5. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201]
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
8. 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]
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
10. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
11. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
12. The permittee shall keep accurate records of each organic liquid stored in the tank, including its TVP and API gravity. [District Rule 4623]
13. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rules 2020 and 2080]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rules 2020 and 2080]
15. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rules 2020 and 2080]
16. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 4623]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-6-1

EXPIRATION DATE: 07/31/2020

EQUIPMENT DESCRIPTION:

19.0 MMBTU/HR NATURAL GAS/PROPANE-FIRED STEAM GENERATOR WITH GIDEON MODEL MGW-25R1 ULTRA LOW NOX BURNER

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
8. No air contaminant shall be released into the atmosphere that causes a public nuisance. [District Rule 4102]
9. 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]
10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
11. The unit shall only be fired on PUC-regulated quality natural gas, propane, or a combination thereof. [District Rule 2201]
12. This steam generator is not authorized to incinerate casing gas. [District Rule 2201]
13. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401]
14. Emissions from the natural gas/propane-fired unit shall not exceed any of the following limits: 9 ppmvd NO_x @ 3% O₂ or 0.011 lb-NO_x/MMBtu, 0.0164 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, 35 ppmvd CO @ 3% O₂ or 0.026 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306]
15. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

16. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305 and 4306]
17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306]
18. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306]
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 and 4306]
20. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas or propane shall be conducted within 60 days of initiating combustion of each fuel type. [District Rules 2201, 4305, and 4306]
21. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas or propane shall be conducted at least once every twelve (12) months after initial source testing with that fuel type. 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 and 4306]
22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]
23. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
24. NO_x 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 and 4306]
25. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306]
26. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306]
27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306]
28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-7-2

EXPIRATION DATE: 07/31/2020

SECTION: NW7 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 40 STEAM ENHANCED WELLS WITH OPEN CASING VENTS SERVED BY VAPOR CONTROL SYSTEM INCLUDING COMPRESSOR(S), GAS/LIQUID SEPARATOR, AND 10.4 MMBTU/HR FLARE

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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]
3. TEOR wells shall be authorized to operate with open or closed casing vents. [District Rule 2201 and 4401]
4. Production from TEOR wells operated with closed casing vents shall be sent only to tanks equipped with 99% vapor control. [District Rules 2201 and 4401]
5. Vapors from TEOR wells operated with open casing vents shall be sent to only to vapor control system served by 10.4 MMBtu/hr flare. [District Rule 2201]
6. Leaks exceeding an instrument reading of 10,000 ppmv are a violation of this permit. [District Rules 2201 and 4401]
7. Fugitive VOC emissions from TEOR operation shall not exceed 1.9 lb/day. [District Rule 2201]
8. Components shall be inspected quarterly for leaks, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 1070 and 4401]
9. Permittee shall maintain records of the date and well identification where steam injection or well stimulation occurs, current list of all thermally enhanced production wells associated with this operation with identification of wells operated with closed and open casing vents, leak inspection results, and accurate fugitive component counts of components in gas service and resulting emissions calculated using the emission factors in the CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999) . [District Rule 4401]
10. This permit shall not authorize the utilization of any IC engine, or other combustion device requiring a separate permit, for powering the air assist to the flare. [District Rule 2201]
11. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2201]
12. Flare shall be equipped with air assist which shall be utilized when needed to maintain visible emissions below Ringlemann 1/4 and 5% opacity. [District Rule 2201]
13. A flame shall be present at all times when combustible gases are vented through this flare. [District Rule 2201]
14. Sulfur concentration of gas combusted in flare shall not exceed 2.66 gr S/100 scf (45 ppmv H₂S). [District Rule 2201]
15. Flare shall be equipped with total gas volume flow meter. [District Rule 2201]
16. Maximum amount of gas combusted shall not exceed 250 MMBtu/day. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

17. Maximum amount of gas combusted shall not exceed 91,250 MMBtu/yr. [District Rule 2201]
18. Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NO_x (as NO₂): 0.068lb/MMBtu; PM₁₀: 0.008 lb/MMBtu; CO: 0.37 lb/MMBtu; or VOC: 0.063 lb/MMBtu. [District Rule 2201]
19. Permittee shall measure the sulfur content of the gas combusted by District witnessed, or authorized, sample collection by ARB certified testing laboratory at startup and annually thereafter or upon change of source of flared gas. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 1081, 7.2 and 2201]
20. The sulfur content of the combusted gas shall be determined using ASTM test methods D-1072, D-3246, D-6228, or double GC for H₂S and Mercaptans. H₂S concentration (ppmv) of the gas shall be determined using ASTM test methods D-1072 or D-4084, using Draeger tube, or by gas supplier test data consistent with the natural gas fuel sulfur content test method listed in this permit. [District Rule 1081]
21. The higher heating value of the flared gas shall be monitored at least quarterly or upon change of source of flared gas. [District Rules 1070 and 2201]
22. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201]
23. Permittee shall keep accurate records of daily and annual heat input to the flare in MMBtu/day and MMBtu/yr. [District Rule 2201]
24. All records required by this permit shall be maintained and retained on-site for a minimum of five (5) years and made available for District, ARB, and EPA inspection upon request. [District Rule 1070]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-8-1

EXPIRATION DATE: 07/31/2020

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF CRUDE OIL GAUGE TANK CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-4159-4

PERMIT UNIT REQUIREMENTS

1. VOC emission rate from vapor service components associated with the tank shall not exceed 0.1 lb/day. [District Rule 2201]
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
3. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
4. 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]
5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its TVP and API gravity. [District Rule 4623]
9. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from the tank 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 (<10,000 ppmv) Emission Factors. [District Rule 2201]
10. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201]
11. This permit authorizes tank cleaning, that is not the result of breakdowns or poor maintenance, as a routine maintenance activity. [District Rules 2020 and 2080]
12. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rules 2020 and 2080]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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13. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rules 2020 and 2080]
14. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 4623]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4159-9-0

EXPIRATION DATE: 07/31/2020

SECTION: NW S7 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

2,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK CONNECTED TO THE VAPOR RECOVERY CONTROL SYSTEM LISTED ON S-4159-4 (HOYT LEASE)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. VOC emission rate from vapor service components associated with the tank shall not exceed 0.1 lb/day. [District Rule 2201]
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
5. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
7. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
8. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
9. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
10. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with tank. [District Rule 2201]
11. This permit authorizes tank cleaning, that is not the result of breakdowns or poor maintenance, as a routine maintenance activity. [District Rule 2080]
12. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 3 of Rule 4623. [District Rule 2080]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. Permittee shall maintain records of annual tank inspections, maintenance, and cleaning to document the participation in the Rule 4623 Fixed Roof Tank Preventative Inspection, Maintenance and Tank Interior Cleaning Program. [District Rule 2080]
14. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from the tank 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 (<10,000 ppmv) Emission Factors. [District Rule 2201]
15. The permittee shall keep accurate records of each organic liquid stored in the tank, including its TVP and API gravity. [District Rules 1070 and 4623]
16. All records shall be maintained for a period of at least five years and made available for District inspection upon request. [District Rules 1070 and 4623]

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