



JAN 10 2017

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

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit
District Facility # S-3007
Project # 1153640**

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 Kern County, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the 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 Marjollet
Director of Permit Services

Enclosures

cc: Mike Tollstrup, CARB (w/enclosure) via email

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

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

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

Mr. Tim Alburger
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cc: Gerardo C. Rios, EPA (w/enclosure) via email

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

SENECA RESOURCES

ENGINEERING EVALUATION

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ATTACHMENT A - DETAILED FACILITY REPORT

ATTACHMENT B - CURRENT PERMIT TO OPERATE

TITLE V APPLICATION REVIEW

Project #: S-1153640
Deemed Complete: 11/9/15

Engineer: David Torii
Date: 1/3/2017

Facility Number: S-3007
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-3007. 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 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-3007-0-1 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-3007-0-1
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-3007-0-1
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-3007-0-1
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-3007-0-1
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
3-3	Sulfur content of the production gas being fired in the flare shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or double GC for H ₂ S and mercaptans. [District Rule 1081]
8-7	H ₂ S concentration shall not exceed 1,000 ppm in lease gas. Testing to measure lease gas sulfur content shall be conducted using ASTM D3246 oxidation combustion microcoulometric or ASTM D6228 double GC for H ₂ S and mercaptans. [District Rule 1081]
8-7	Upon recommencing operation, compliance with sulfur limit shall be verified by lease gas sulfur sample no less than every calendar quarter in which the unit is operated. [District Rule 1081]
8-7	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] N
8-7	The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] N
8-7	Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081]
14-4	Upon recommencing operation, permittee shall determine sulfur content of scrubbed produced gas weekly for eight consecutive weeks. Once eight (8) consecutive weekly tests show compliance, the fuel sulfur content testing frequency may be reduced to semi-annually. If a semi-annual test shows violation of the sulfur content limit, then weekly testing shall resume and continue until eight (8) consecutive tests show compliance. Once compliance is shown on eight (8) consecutive weekly tests, then testing may return to semi-annually. Weekly gas analysis shall be performed using Draeger tubes and semi-annual analysis using ASTM method D3246 or double GC for H ₂ S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [District Rules 1081 and 2201]
14-4	Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rules 1081 and 2201]

Rule 1081	
Permit	Condition
14-4	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]
14-4	The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
14-4	The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D1072, ASTM D3246, ASTM D6228 (GC-FPD) or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, and 4320]

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-3007-0-1
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

S-3007-0-1
Condition
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-3007-0-1
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-3007-0-1
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]

S-3007-0-1
Condition
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-3007-0-1
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-3007-0-1
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-3007-1-4
1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #5382 (RIPLEY-TATUM LEASE)
This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rules 2201 & 4623]
Emissions from this tank shall not exceed 4.8 lb VOC/day. [District Rule 2201]
Throughput for this tank shall not exceed 200 bbl/day on a monthly average. [District Rule 2201]

S-3007-1-4
1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #5382 (RIPLEY-TATUM LEASE)
Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] N

S-3007-2-3
1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #5386 (RIPLEY-TATUM LEASE)
This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623]
Emissions from this tank shall not exceed 4.8 lb VOC/day. [District Rule 2201]
Throughput for this tank shall not exceed 200 bbl/day on a monthly average. [District Rule 2201]
Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623]

S-3007-3-3
1.9 MMBTU/HR VERTICAL HEATER TREATER FIRED ON LEASE GAS (RIPLEY-TATUM LEASE)
The sulfur compounds concentration in the fuel gas shall not exceed 1 grain S/100 dscf (17 ppmv H ₂ S). [District Rule 2201] N
Emissions from the natural gas-fired unit shall not exceed any of the following limits: 83 ppmvd NO _x @ 3% O ₂ or 0.1 lb-NO _x /MMBtu, 0.003 lb-SO _x /MMBtu, 0.0076 lb-PM ₁₀ /MMBtu, 115 ppmvd CO @ 3% O ₂ or 0.084 lb-CO/MMBtu, 13 ppmvd VOC @ 3% O ₂ or 0.0055 lb-VOC/MMBtu. [District Rule 2201] N
Testing to demonstrate compliance with the production gas fuel sulfur content limit shall be conducted weekly. Once eight (8) consecutive weekly tests show compliance, the fuel sulfur content testing frequency may be reduced to semi-annually. If a semi-annual test shows violation of the sulfur content limit, then weekly testing shall resume and continue until eight (8) consecutive tests show compliance. Once compliance is shown on eight (8) consecutive weekly tests, then testing may return to semi-annually. [District Rule 2201] N

S-3007-5-3
1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #30 (RIPLEY TATUM LEASE)
This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623] N
Emissions from this tank shall not exceed 4.8 lb VOC/day. [District Rule 2201]
Throughput for this tank shall not exceed 200 bbl/day on a monthly average. [District Rule 2201] N
Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its

S-3007-5-3
1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #30 (RIPLEY TATUM LEASE) storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] N

S-3007-6-4
500 BBL FIXED ROOF CRUDE OIL STOCK TANK #2 (RIPLEY TATUM LEASE) This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623] Emissions from this tank shall not exceed 2.4 lb VOC/day. [District Rule 2201] Throughput for this tank shall not exceed 100 bbl/day on a monthly average. [District Rule 2201] N Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] N

S-3007-7-2
500 BBL FIXED ROOF CRUDE OIL STOCK TANK #3 (RIPLEY-TATUM LEASE) This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623] Emissions from this tank shall not exceed 2.4 lb VOC/day. [District Rule 2201] N Throughput for this tank shall not exceed 100 bbl/day on a monthly average. [District Rule 2201] N Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] N

S-3007-8-7
25.2 MMBTU/HR NATIONAL CO S/N S8736 NATURAL GAS/PROPANE/PRODUCTION GAS-FIRED STEAM GENERATOR WITH BURNER DIFFUSER PLATE AND FLUE GAS RECIRCULATION (FGR) Upon recommencing operation, emissions from the natural gas/propane/production gas-fired unit shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.05 lb-SOx/MMBtu, 0.0044 lb-PM10/MMBtu, 100 ppmvd CO @ 3% O2 or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of recommencing operation of this unit. [District Rules 2201, 4305, and 4306] N Permittee shall maintain records of volume of fuel gas burned and lease gas incinerated, calendar quarterly lease and fuel gas sulfur content and BTU content. [District Rule 2201] N Upon recommencing operation, the permittee shall maintain records of fuel hhv, lease gas sulfur content and cumulative annual fuel use. [District Rule 2201] N

S-3007-9-5
THERMALLY ENHANCED OIL RECOVERY OPERATION INCLUDING 99 CYCLICALLY STEAMED ENHANCED CRUDE OIL PRODUCTION WELLS WITH CASING COLLECTION SYSTEM CONNECTED TO SALES GAS PIPELINE AND OPTIONAL SULFUR REMOVAL SYSTEM
Vapors from the well vents shall be treated by SulfaTreat system prior to incineration. [District Rule 2201] N
Sulfa Treat system shall be used as necessary to ensure that sulfur content of gas combusted in steam generator S-3007-14 shall not exceed 1 gr S/ 100 scf. [District Rule 2201] N
Well vent vapor from this operation shall only be incinerated in vapor control equipment listed in permits S-3007-3, -4, -8, -14 or -15. [District Rule 2201] N
The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. [District Rule 2201] N
All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201] N
The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 2201] N
Permittee shall maintain accurate component count for TEOR operation according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors. Permittee shall update such records when new components are installed. [District Rule 2201]
Fugitive VOC emission rate shall not exceed 2.3 lb/day. [District Rule 2201] N
The permittee shall keep accurate records of component counts for a period of five years and shall make such records available for District inspection upon request. [District Rule 2201] N
S-3007-11-2
500 BBL FIXED ROOF PETROLEUM STOCK TANK (RIPLEY TRUST LEASE)
This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623] N
Emissions from this tank shall not exceed 2.4 lb VOC/day. [District Rule 2201] N
Throughput for this tank shall not exceed 100 bbl/day on a monthly average. [District Rule 2201] N
Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] N
S-3007-12-2
1,000 BBL FIXED ROOF PETROLEUM STOCK TANK (RIPLEY TRUST LEASE)
This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623] N

S-3007-12-2
1,000 BBL FIXED ROOF PETROLEUM STOCK TANK (RIPLEY TRUST LEASE)
Emissions from this tank shall not exceed 4.8 lb VOC/day. [District Rule 2201] N
Throughput for this tank shall not exceed 200 bbl/day on a monthly average. [District Rule 2201] N
Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] N

S-3007-14-4
62.5 MMBTU/HR NATIONAL CO. NATURAL GAS/PROPANE/PRODUCTION GAS-FIRED STEAM GENERATOR WITH A MAGNA FLAME MODEL 4231 G-LE ULTRA LOW NOX BURNER AND FLUE GAS RECIRCULATION (S/N S8736)
Sulfur removal equipment shall be installed as necessary to ensure that gaseous fuels other than propane contain no more than 1.0 gr S/100 scf before combustion. [District Rules 2201 and 4320] N
The unit shall only be fired on PUC-quality natural gas, propane, or produced/TEOR gas. [District Rule 2201] N
Sulfur content of propane shall not exceed 15 grain per 100 scf. [District Rule 2201] N
Sulfur content of combusted produced/TEOR gas shall not exceed 1 gr S/ 100 scf. [District Rule 2201] N
When fired on natural gas or produced/TEOR gas, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]
When fired on propane, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.0166 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] N
Upon recommencing operation, permittee shall determine sulfur content of scrubbed produced gas weekly for eight consecutive weeks. Once eight (8) consecutive weekly tests show compliance, the fuel sulfur content testing frequency may be reduced to semi-annually. If a semi-annual test shows violation of the sulfur content limit, then weekly testing shall resume and continue until eight (8) consecutive tests show compliance. Once compliance is shown on eight (8) consecutive weekly tests, then testing may return to semi-annually. Weekly gas analysis shall be performed using Draeger tubes and semi-annual analysis using ASTM method D3246 or double GC for H2S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [District Rules 1081 and 2201] N
Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rules 1081 and 2201] N

S-3007-14-4
62.5 MMBTU/HR NATIONAL CO. NATURAL GAS/PROPANE/PRODUCTION GAS-FIRED STEAM GENERATOR WITH A MAGNA FLAME MODEL 4231 G-LE ULTRA LOW NOX BURNER AND FLUE GAS RECIRCULATION (S/N S8736)
Compliance with the fuel gas sulfur compound concentration requirement may be demonstrated by firing the unit only on PUC regulated natural gas, or by fuel analysis. [District Rule 2201]

S-3007-18-2
250 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH P/V VENT (RIPLEY-TATUM LEASE)
This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623] N
Emissions from this tank shall not exceed 2.2 lb VOC/day. [District Rule 2201] N
Throughput for this tank shall not exceed 100 bbl/day on a monthly average. [District Rule 2201] N

S-3007-19-1
250 BBL FIXED ROOF CRUDE OIL DRAIN TANK WITH P/V VENT (RIPLEY TATUM LEASE)
Crude oil throughput shall not exceed 5 barrels per day based on a monthly average. [District Rule 2201] N
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
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 2201] N

S-3007-20-1
300 BBL FIXED ROOF CONSTANT LEVEL CRUDE OIL CLARIFIER TANK WITH P/V VENT (RIPLEY TATUM LEASE)
Tank shall be operated at a constant level. [District Rule 2201] N
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
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 2201] N

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-3007-0-1
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
3-3	Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
8-7	
14-4	

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-3007-8 and '14 are subject to Rules 4305, 4306 and 4320.

Unit S-3007-8 does not meet Rule 4320's emission limits and is not allowed to operate pursuant to the following conditions.

The following conditions ensure that S-3007-8 does not operate until modifications are made to comply with this rule. No further Rule 4320 discussion is required for S-3007-8.

Rule 4320	
Permit	Condition
8-7	The fuel supply line shall be physically disconnected from this unit. [District Rule 4320] N
	Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 4320]
	While dormant, normal source testing shall not be required.

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
14-4	When fired on natural gas or produced/TEOR gas, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.005145 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] N
	When fired on propane, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.0166 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]

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 generators are all fired on pipeline quality gas.

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

Rule 4320	
Permit	Condition
14-4	Sulfur removal equipment shall be installed as necessary to ensure that gaseous fuels other than propane contain no more than 1.0 gr S/100 scf before combustion. [District Rules 2201 and 4320]
	9. The unit shall only be fired on PUC-quality natural gas, propane, or produced/TEOR gas. [District Rules 2201 and 4320]
	Sulfur content of propane shall not exceed 15 grain per 100 scf. [District Rules 2201 and 4320]
	Sulfur content of combusted produced/TEOR gas shall not exceed 1 gr S/100 scf. [District Rules 2201 and 4320]

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
14-4	Upon recommencing operation, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] N
	If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] N
	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] N

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
14-4	The unit shall only be fired on PUC-quality natural gas, propane, or produced/TEOR gas. [District Rules 2201 and 4320] N
	Upon recommencing operation, permittee shall determine sulfur content of scrubbed produced gas weekly for eight consecutive weeks. Once eight (8) consecutive weekly tests show compliance, the fuel sulfur content testing frequency may be reduced to semi-annually. If a semi-annual test shows violation of the sulfur content limit, then weekly testing shall resume and continue until eight (8) consecutive tests show compliance. Once compliance is shown on eight (8) consecutive weekly tests, then testing may return to semi-annually. Weekly gas analysis shall be performed using Draeger tubes and semi-annual analysis using ASTM method D3246 or double GC for H ₂ S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [District Rules 1081, 2201, 4320]
	Compliance with the fuel gas sulfur compound concentration requirement may be demonstrated by firing the unit only on PUC regulated natural gas, or by fuel analysis. [District Rules 2201 and 4320] N
	Sulfur content of combusted produced/TEOR gas shall not exceed 1 gr S/ 100 scf. [District Rules 2201 and 4320] N

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
14-4	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
14-4	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 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
14-4	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 Rules 1081 and 4320]
	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
	The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D1072, ASTM D3246, ASTM D6228 (GC-FPD) or double GC for H2S and mercaptans. [District Rules 1081, 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
14-4	Upon recommencing operation, source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320]
	{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 VOC collection and control systems.

Pursuant to Section 3.0, a leak shall be defined as a reading as methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured in accordance with the test method specified in Section 6.3.3.

Section 4.1 exempts any steam-enhanced crude oil production well undergoing service or repair from the requirements of this rule. Section 4.7 exempts any operation from the requirements of Section 5.4.1 through Section 5.4.7 (Inspection and Re-Inspection) of this rule if components exclusively handle gas/vapor or liquid with a VOC content of ten percent by weight or less (10 wt.%), as determined by the test methods in Section 6.3.4.

Pursuant to Section 5.1, an operator shall not operate a steam-enhanced crude oil production well unless either of the following two conditions are met: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids is connected to a VOC collection and control system as defined in Section 3.0 of this rule, or 2) the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system that has a VOC collection and control system as defined in Section 3.0 of this rule.

Pursuant to Section 5.2: (1) There shall be no open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; (2) There shall be no components with a major liquid leak as defined in Section 3.20.2; (3) There shall be no components with a gas leak of greater than 50,000 ppmv; and (4) There shall be no more than a total of 8 component leaks, including minor liquid leaks, minor gas leaks or gas leaks between 10,000 ppmv and 50,000 ppmv.

Pursuant to Section 5.3: (1) No leaking components may be used unless they have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5; (2) Each hatch shall be closed at all times except during attended repair, replacement, or maintenance operations, providing such activities are done as expeditiously as possible with minimal spillage or material and VOC emissions into the atmosphere; and (3) The operator shall comply with the requirements of Section 6.7 if there is any change in the description of major components or critical components.

Pursuant to Section 5.5.1, upon detection of a leak, an operator shall affix a readily visible weatherproof tag to that leaking component that includes the following information: (1) The date and time of leak detection; (2) The date and time of the leak measurement; (3) For a gaseous leak, the leak concentration in ppmv; (4) For a liquid leak, whether it is a major or minor liquid leak; and (5) Whether the component is an essential component, and unsafe-to-monitor component, or a critical component.

Pursuant to Section 5.5.2, the tag shall remain affixed to the leaky component until all the following requirements are met: (1) The component is repaired or replaced; (2) The component is re-inspected as set forth in Section 6.3; and (3) The component is found to be in compliance with this rule.

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

Pursuant to Section 5.5.4, 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 following three requirements as soon as

practicable but not later than the time period specified in Table 3: (1) Repair or replace the leaking component; (2) Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or (3) Remove the leaking component from operation.

Pursuant to Section 5.5.5, 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.

Pursuant to Section 5.5.6, the time of the initial leak detection shall be the start of the repair period specified in Table 3.

Pursuant to Section 5.5.7, 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.

Pursuant to Section 6.1, the following records shall be retained for a period of five years and made available for District inspection upon request:

- 1) The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs.
- 2) A small producer shall maintain monthly records of county-specific crude oil production. For the purpose of this rule, the monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to satisfy Section 6.1.2.
- 3) 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.
- 5) The inspection log maintained pursuant to Section 6.4.
- 6) Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment,

calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration.

- 7) An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5.
- 8) An operator shall keep a copy of the APCO-approved Operator Management Plan at the facility.
- 9) An operator shall keep a list of all gauge tanks, as defined in Section 3.0. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment.
- 10) The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing.
- 11) An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year.

Pursuant to Section 6.2.3, an operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0: (1) An operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July – September), and whenever there is a change in the source or type of produced fluid in the gauge tank; (2) The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9.

Pursuant to Section 6.3, the following test methods shall be used:

- 1) The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the concentration must be below 50 ppmv, in which case EPA Method 25a may be used. EPA Method 18 may be used instead, providing the requirements under Section 6.3.1 are met.
- 2) VOC content shall be analyzed using the latest revision of ASTM Method E-168, E169 or E260 as applicable. Analysis of halogenated exempt compounds shall be performed using ARB Method 432.

- 3) Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface.
- 4) The VOC content by weight percent shall be determined using ASTM D1945 for gasses and SCAQMD Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids.

Pursuant to Section 6.4, the operator shall maintain an inspection log in which the operator records at least all of the following information for each inspection performed:

- 1) The total number of components inspected, and the total number and percentage of leaking components found by component type,
- 2) The location, type and name or description of each leaking component and description of any unit where the leaking component is found,
- 3) The date of leak detection and the method of leak detection,
- 4) For gaseous leaks, the leak concentration in ppmv and, for liquids leaks, whether the leak is major or minor,
- 5) The date of repair, replacement or removal from operation of leaking components,
- 6) The identity and location of essential components and critical components as defined in this Rule, found leaking, that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier,
- 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than 1 year after detection, whichever comes earlier,
- 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or replaced,

- 9) The inspectors name, business mailing address, and business telephone number, and
- 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log.

Pursuant to Section 6.5, the operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures as necessary.

Pursuant to Section 6.6, 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.

Pursuant to Section 6.7, 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.

The following conditions on S-3007-9-5 ensure compliance with the above requirements.

S-3007-9-5
THERMALLY ENHANCED OIL RECOVERY OPERATION INCLUDING 99 CYCLICALLY STEAMED ENHANCED CRUDE OIL PRODUCTION WELLS WITH CASING COLLECTION SYSTEM CONNECTED TO SALES GAS PIPELINE AND OPTIONAL SULFUR REMOVAL SYSTEM
An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC 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. [District Rule 4401, 5.1]
Permittee shall install and 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, 5.1]

S-3007-9-5
THERMALLY ENHANCED OIL RECOVERY OPERATION INCLUDING 99 CYCLICALLY STEAMED ENHANCED CRUDE OIL PRODUCTION WELLS WITH CASING COLLECTION SYSTEM CONNECTED TO SALES GAS PIPELINE AND OPTIONAL SULFUR REMOVAL SYSTEM
During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1]
The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.3.1]
Permittee 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, 6.1]
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 OMP. [District Rule 4401, 6.7]
In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6]
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, 3.20]
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, 3.20]
During District compliance inspection, the following conditions shall be used to determination of a violation: 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 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 2 of Rule 4401. [District Rule 4401, 5.2.2]

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THERMALLY ENHANCED OIL RECOVERY OPERATION INCLUDING 99 CYCLICALLY STEAMED ENHANCED CRUDE OIL PRODUCTION WELLS WITH CASING COLLECTION SYSTEM CONNECTED TO SALES GAS PIPELINE AND OPTIONAL SULFUR REMOVAL SYSTEM
Permittee shall keep all hatches 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, 5.3.2]
Except for pipes and unsafe-to-monitor components, permittee 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, 5.4.1 & 5.4.2]
Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.5]
Permittee 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, 5.4.3.1]
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, 5.4.3.2]
Permittee 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, 5.4.4.1]
Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.4.4.2]
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, 5.4.4.3]
Permittee 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) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) 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, 5.5.1]

S-3007-9-5
THERMALLY ENHANCED OIL RECOVERY OPERATION INCLUDING 99 CYCLICALLY STEAMED ENHANCED CRUDE OIL PRODUCTION WELLS WITH CASING COLLECTION SYSTEM CONNECTED TO SALES GAS PIPELINE AND OPTIONAL SULFUR REMOVAL SYSTEM
Permittee 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, 5.5.2]
Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3]
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, 5.5.4]
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, 5.5.5]
If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7]

S-3007-9-5

THERMALLY ENHANCED OIL RECOVERY OPERATION INCLUDING 99 CYCLICALLY STEAMED ENHANCED CRUDE OIL PRODUCTION WELLS WITH CASING COLLECTION SYSTEM CONNECTED TO SALES GAS PIPELINE AND OPTIONAL SULFUR REMOVAL SYSTEM

Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for 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 leaking components; 6) The identity 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; 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; 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, 6.4]

Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA 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 centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3]

Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. 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. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2]

S-3007-9-5
THERMALLY ENHANCED OIL RECOVERY OPERATION INCLUDING 99 CYCLICALLY STEAMED ENHANCED CRUDE OIL PRODUCTION WELLS WITH CASING COLLECTION SYSTEM CONNECTED TO SALES GAS PIPELINE AND OPTIONAL SULFUR REMOVAL SYSTEM
The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1]
VOC content shall be determined using ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2]
VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4]
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, 6.1.6 & 6.5]
Unless the source testing requirement is waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1.3]
Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1]
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, 6.1.5]

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 4.4, 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.

The facility's tanks all have a 0.5 psia TVP limit, or less, and except for

tank S-3007-19 have the following conditions which are required to ensure compliance with sections 6.3.6, 6.4 and 7.2

All Storage Tanks
This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia (or 0.5 psia on some permits) under all storage conditions. [District Rule 2201 & 4623]
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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [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]
Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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]
All records shall be retained for a period of at least five years and made available for District inspection upon request. [District Rule 1070]

Tank S-3007-19 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-3007-19 can no longer enjoy the 50 bbl/day exemption. Therefore, 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.	✓	

Units S-3007-3, '4, '8 and '14 are subject to this rule.

Heater treater S-3007-3 is limited to firing on gas with no more than 0.1 gr-S/100 dscf (17 ppmv H₂S) pursuant to the following conditions:

S-3007-3-3
1.9 MMBTU/HR VERTICAL HEATER TREATER FIRED ON LEASE GAS (RIPLEY-TATUM LEASE)
The sulfur compounds concentration in the fuel gas shall not exceed 1 grain S/100 dscf (17 ppmv H ₂ S). [District Rules 2201 and 4801]
Emissions from the natural gas-fired unit shall not exceed any of the following limits: 83 ppmvd NO _x @ 3% O ₂ or 0.1 lb-NO _x /MMBtu, 0.003 lb-SO _x /MMBtu, 0.0076 lb-PM ₁₀ /MMBtu, 115 ppmvd CO @ 3% O ₂ or 0.084 lb-CO/MMBtu, 13 ppmvd VOC @ 3% O ₂ or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4307 and 4801]

The following condition will be added to tank heater S-3007-4 to ensure compliance with this rule.

S-3007-4-1
<p>0.5 MMBTU/HR TANK HEATER FIRED ON LEASE GAS (RIPLEY-TATUM LEASE)</p> <p>The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [Kern County Rule 407, District Rule 4301, District Rule 4801, and District Rule 2520, 9.3.2]</p>

Steam generator S-3007-8 is limited to firing on fuel gas with no more than 1000 ppmv H₂S or 0.05 lb-SO_x/MMBtu pursuant to the following conditions:

S-3007-8-7
<p>25.2 MMBTU/HR NATIONAL CO S/N S8736 NATURAL GAS/PROPANE/PRODUCTION GAS-FIRED STEAM GENERATOR WITH BURNER DIFFUSER PLATE AND FLUE GAS RECIRCULATION (FGR)</p>
<p>Emissions from the natural gas/propane/production gas-fired unit shall not exceed any of the following limits: 15 ppmvd NO_x @ 3% O₂ or 0.018 lb-NO_x/MMBtu, 0.05 lb-SO_x/MMBtu, 0.0044 lb-PM₁₀/MMBtu, 100 ppmvd CO @ 3% O₂ or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4801]</p>
<p>H₂S concentration shall not exceed 1,000 ppm in lease gas. Testing to measure lease gas sulfur content shall be conducted using ASTM D3246 oxidation combustion microcoulometric or ASTM D6228 double GC for H₂S and mercaptans. [District Rules 1081 and 4801]</p>

$$\frac{2000 \text{ parts}}{10^6 \text{ parts}} \left(\frac{8,578 \text{ dscf}}{\text{MMBtu}} \right) \frac{64 \text{ lb} \cdot \text{SO}_2}{\text{lb} \cdot \text{mole}} \left(\frac{20.9}{20.9 - 3} \right) \frac{\text{lb} \cdot \text{mole}}{379.5 \text{ dscf}} = 3.38 \frac{\text{lb} \cdot \text{SO}_2}{\text{MMBtu}}$$

As shown above, 0.2% SO_x (2000 ppmv) is equivalent to 3.38 lb-SO_x/MMBtu. As shown in the above tables that permits' H₂S limits are less than 2000 ppmv and or 3.38 lb-SO_x/MMBtu. Therefore, compliance with this rule is expected.

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-3007-0-1
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]
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]

S-3007-0-1

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]

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-3007-0-1

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-3007-0-1
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-3007-0-1
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-3007-0-1
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-3007-0-1
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-3007-0-1

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 generators (S-3007-8 and '14) are subject to Subpart Dc requirements.

60.42c – Standards for Sulfur Dioxide

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

60.43c – Standards for Particulate Matter

The steam generators in this facility are 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 generators in this facility are 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 generators in this facility.

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

Since the steam generators in this facility are 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 generators in this facility.

60.46c – Emission Monitoring for Sulfur Dioxide

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

60.47c – Emission Monitoring for Particulate Matter

Since the steam generators in this facility are not subject to the particulate matter requirements of this subpart, no monitoring is required. Therefore, the requirements of this section are 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 generators are 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 permits 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-3007-0-1

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 and wells, 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 wells are not required to have CAM.

Heater treater S-3007-3 and tank heater '4 do not have add-on control. Therefore, they are not required to have CAM.

Steam generator S-3007-8 has emissions limits for SO_x, PM₁₀, CO, and VOC but does not have add-on controls for these criteria pollutants. Therefore, it is not subject to CAM for SO_x, PM₁₀, CO, and VOC.

S-3007-8 may be subject to CAM for NO_x since it has NO_x limits, and has add-on controls in the form of FGR. However, the pre-control NO_x potential to emit is less than the major source threshold of 20,000 pounds NO_x/year as shown below. Therefore, they unit is not subject to CAM.

AP-42 Table 1.4-1 (7/98) lists the following emissions factors for Large Wall-Fired Boilers (>100 MMBtu/hr)

	Emissions Factor (lb/10 ⁶ scf)
Controlled – low NO _x burners	140
Controlled – Low NO _x burners/Flue gas recirculation	100

Unit S-3007-8 is rated at 25 MMBtu/hr and is limited to 15 ppmv-NO_x @ 3% O₂ (0.018 lb-NO_x/MMBtu)

The control efficiency of FGR and corresponding emissions factor are

$$1 - 100/140 = 29\%$$

$$0.018/(1 - 0.29) = 0.013 \text{ lb-NO}_x/\text{MMBtu}$$

The pre "add-on control" emissions are:

$$0.013 \text{ lb/MMBtu} \times 25 \text{ MMBtu/hr} \times 8760 \text{ hr/yr} = 2847 \text{ lb-NO}_x/\text{yr} < 20,000 \text{ lb/yr}$$

S-3007-14 may be subject to CAM for NO_x since it has NO_x limits, and has add-on controls in the form of FGR.

Unit S-3007-14 is rated at 62.5 MMBtu/hr and is limited to 7 ppmv-NO_x @ 3% O₂ (0.008 lb-NO_x/MMBtu)

The control efficiency of FGR and corresponding emissions factor are

$$1 - 100/140 = 29\%$$

$$0.008/(1 - 0.29) = 0.006 \text{ lb-NO}_x/\text{MMBtu}$$

The pre "add-on control" emissions are:

$$0.006 \text{ lb/MMBtu} \times 62.5 \text{ MMBtu/hr} \times 8760 \text{ hr/yr} = 3285 \text{ lb-NO}_x/\text{yr} < 20,000 \text{ lb/yr}$$

As shown above, the pre-control NO_x potential to emit is less than the major source threshold of 20,000 pounds NO_x/year. Therefore, the unit 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-3007-0-1
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.

San Joaquin Valley Air Pollution Control District

FACILITY: S-3007-0-1

EXPIRATION DATE: 09/30/2016

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, 9.9.1 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
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

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 CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE23, T11N, R23W
S-3007-0-1; Jan 3 2017 12:46PM - TORID

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

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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 8021 and 8011] 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 8031 and 8011] 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 8041 and 8011] 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 8051 and 8011] 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 8061 and 8011] Federally Enforceable Through Title V Permit

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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 8071 and 8011] 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. 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
42. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
43. Facilities S-1114, S-3007, S-3755 and S-4159 are part of the same stationary source. [District Rule 2201] 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-3007-1-4

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #5382 (RIPLEY-TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rules 2201 & 4623] Federally Enforceable Through Title V Permit
2. Emissions from this tank shall not exceed 4.8 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Throughput for this tank shall not exceed 200 bbl/day on a monthly average. [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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [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. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be 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

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S-SE23, T11N, R23W
S-3007-1-4: Jan 3 2017 12:46PM - 10RID

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-2-3

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #5386 (RIPLEY-TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623] Federally Enforceable Through Title V Permit
2. Emissions from this tank shall not exceed 4.8 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Throughput for this tank shall not exceed 200 bbl/day on a monthly average. [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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [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. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be 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

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE23, T11N, R23W
S-3007-2-3 - Jan 3 2017 12:46PM - TORID

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-3-3

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1.9 MMBTU/HR VERTICAL HEATER TREATER FIRED ON LEASE GAS (RIPLEY-TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. Orifice plates shall have a visible ID tab to confirm orifice plate installation and orifice plate sizing. [District Rule 2050] Federally Enforceable Through Title V Permit
2. Particulate matter emissions from any combustion source shall not exceed 0.1 grains/dscf (calculated to 12% carbon dioxide). [District Rule 4301] Federally Enforceable Through Title V Permit
3. The sulfur compounds concentration in the fuel gas shall not exceed 1 grain S/100 dscf (17 ppmv H₂S). [District Rule 2201 and 4801] Federally Enforceable Through Title V Permit
4. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 83 ppmvd NO_x @ 3% O₂ or 0.1 lb-NO_x/MMBtu, 0.003 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, 115 ppmvd CO @ 3% O₂ or 0.084 lb-CO/MMBtu, 13 ppmvd VOC @ 3% O₂ or 0.0055 lb-VOC/MMBtu. [District Rules 2201 4801] Federally Enforceable Through Title V Permit
5. Testing to demonstrate compliance with the production gas fuel sulfur content limit shall be conducted weekly. Once eight (8) consecutive weekly tests show compliance, the fuel sulfur content testing frequency may be reduced to semi-annually. If a semi-annual test shows violation of the sulfur content limit, then weekly testing shall resume and continue until eight (8) consecutive tests show compliance. Once compliance is shown on eight (8) consecutive weekly tests, then testing may return to semi-annually. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Sulfur content of the production gas being fired in the heater treater shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or double GC for H₂S and mercaptans. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S-SE23, T-11N, R-23W
S-3007-3-3; Jan 3 2017 12:46PM - TORID

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-4-1

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

0.5 MMBTU/HR TANK HEATER FIRED ON LEASE GAS (RIPLEY-TATUM LEASE)

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PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [Kern County Rule 407, District Rules 4301 and 4801] Federally Enforceable Through Title V Permit

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD, S SE23, T11N, R23W
S-3007-4-1: Jan 3 2017 12:46PM - TORID

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-5-3

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #30 (RIPLEY TATUM LEASE)

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PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623] Federally Enforceable Through Title V Permit
2. Emissions from this tank shall not exceed 4.8 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Throughput for this tank shall not exceed 200 bbl/day on a monthly average. [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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [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. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be 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

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S-SE23, T11N, R23W
S-3007-5-3; Jan 3 2017 12:46PM - TORID

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-6-4

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF CRUDE OIL STOCK TANK #2 (RIPLEY TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623] Federally Enforceable Through Title V Permit
2. Emissions from this tank shall not exceed 2.4 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Throughput for this tank shall not exceed 100 bbl/day on a monthly average. [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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [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. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be 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

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-7-2

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF CRUDE OIL STOCK TANK #3 (RIPLEY-TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623] Federally Enforceable Through Title V Permit
2. Emissions from this tank shall not exceed 2.4 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Throughput for this tank shall not exceed 100 bbl/day on a monthly average. [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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [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. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be 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

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE23, T11N, R23W
S-3007-7-2; Jan 3 2017 12:46PM -- TORID

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-8-7

EXPIRATION DATE: 09/30/2016

SECTION: SE23 TOWNSHIP: 11N RANGE: 23W

EQUIPMENT DESCRIPTION:

25.2 MMBTU/HR NATIONAL CO S/N S8736 NATURAL GAS/PROPANE/PRODUCTION GAS-FIRED STEAM GENERATOR WITH BURNER DIFFUSER PLATE AND FLUE GAS RECIRCULATION (FGR)

PERMIT UNIT REQUIREMENTS

1. The fuel supply line shall be physically disconnected from this unit. [District Rule 4320] Federally Enforceable Through Title V Permit
2. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 4320] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 4320] Federally Enforceable Through Title V Permit
4. 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
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. Emissions from the natural gas/propane/production gas-fired unit shall not exceed any of the following limits: 15 ppmvd NO_x @ 3% O₂ or 0.018 lb-NO_x/MMBtu, 0.05 lb-SO_x/MMBtu, 0.0044 lb-PM₁₀/MMBtu, 100 ppmvd CO @ 3% O₂ or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4801] Federally Enforceable Through Title V Permit
7. H₂S concentration shall not exceed 1,000 ppm in lease gas. Testing to measure lease gas sulfur content shall be conducted using ASTM D3246 oxidation combustion microcoulometric or ASTM D6228 double GC for H₂S and mercaptans. [District Rules 1081 and 4801] Federally Enforceable Through Title V Permit
8. Compliance with sulfur limit shall be verified by lease gas sulfur sample no less than every calendar quarter in which the unit is operated. [District Rule 1081] Federally Enforceable Through Title V Permit
9. 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] 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.

10. 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] Federally Enforceable Through Title V Permit
11. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
12. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
13. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
15. 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
16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. 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] Federally Enforceable Through Title V Permit
19. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
20. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
21. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of recommencing operation of this unit. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
22. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. Permittee shall maintain daily records of volume of fuel gas burned and lease gas incinerated, calendar quarterly lease and fuel gas sulfur content and BTU content. [District Rule 2201 and 40 CFR 60.48c (g)] Federally Enforceable Through Title V Permit
24. 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] Federally Enforceable Through Title V Permit
25. The permittee shall maintain records of fuel hhv, lease gas sulfur content and cumulative annual fuel use. [District Rule 2201] Federally Enforceable Through Title V Permit
26. 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.

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-9-5

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY OPERATION INCLUDING 99 CYCLICALLY STEAMED ENHANCED CRUDE OIL PRODUCTION WELLS WITH CASING COLLECTION SYSTEM CONNECTED TO SALES GAS PIPELINE AND OPTIONAL SULFUR REMOVAL SYSTEM

PERMIT UNIT REQUIREMENTS

1. Vapors from the well vents shall be treated by SulfaTreat system prior to incineration. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Sulfa Treat system shall be used as necessary to ensure that sulfur content of gas combusted in steam generator S-3007-14 shall not exceed 1 gr S/ 100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Well vent vapor from this operation shall only be incinerated in vapor control equipment listed in permits S-3007-3, -4, -8, -14 or -15. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall maintain accurate component count for TEOR operation according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors. Permittee shall update such records when new components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Fugitive VOC emission rate shall not exceed 2.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The permittee shall keep accurate records of component counts for a period of five years and shall make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
10. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC 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. [District Rule 4401, 5.1] 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 install and 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, 5.1] Federally Enforceable Through Title V Permit
12. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
13. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
14. Permittee 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, 6.1] Federally Enforceable Through Title V Permit
15. 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 OMP. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit
16. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit
17. 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, 3.20] Federally Enforceable Through Title V Permit
18. 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, 3.20] Federally Enforceable Through Title V Permit
19. During District compliance inspection, the following conditions shall be used to determination of a violation: 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 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit
20. Permittee shall keep all hatches 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, 5.3.2] Federally Enforceable Through Title V Permit
21. Except for pipes and unsafe-to-monitor components, permittee 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, 5.4.1 & 5.4.2] 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. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.5] Federally Enforceable Through Title V Permit
23. Permittee 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, 5.4.3.1] Federally Enforceable Through Title V Permit
24. 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, 5.4.3.2] Federally Enforceable Through Title V Permit
25. Permittee 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, 5.4.4.1] Federally Enforceable Through Title V Permit
26. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.4.4.2] Federally Enforceable Through Title V Permit
27. 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, 5.4.4.3] Federally Enforceable Through Title V Permit
28. Permittee 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) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) 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, 5.5.1] Federally Enforceable Through Title V Permit
29. Permittee 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, 5.5.2] Federally Enforceable Through Title V Permit
30. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit
31. 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, 5.5.4] Federally Enforceable Through Title V Permit
32. 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, 5.5.5] Federally Enforceable Through Title V Permit
33. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

34. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for 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 leaking components; 6) The identity 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; 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; 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, 6.4] Federally Enforceable Through Title V Permit
35. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA 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 centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit
36. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. 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. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit
37. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
38. VOC content shall be determined using ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
39. VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit
40. 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, 6.1.6 & 6.5] Federally Enforceable Through Title V Permit
41. Unless the source testing requirement is waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit
42. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

43. 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, 6.1.5] Federally Enforceable Through Title V Permit

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE28 T11N, R23W
S-3007-9-5: Jan 3 2017 12:46PM - TORIO

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-10-1

EXPIRATION DATE: 09/30/2016

SECTION: NE25 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

750 BBL FIXED ROOF PETROLEUM WASH TANK (RIPLEY TRUST LEASE)

PERMIT UNIT REQUIREMENTS

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

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE23, T11N, R23W
S-3007-10-1; Jan 3 2017 12:46PM - TORID

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-11-2

EXPIRATION DATE: 09/30/2016

SECTION: NE25 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF PETROLEUM STOCK TANK (RIPLEY TRUST LEASE)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623] Federally Enforceable Through Title V Permit
2. Emissions from this tank shall not exceed 2.4 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Throughput for this tank shall not exceed 100 bbl/day on a monthly average. [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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [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. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be 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

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE 23, 11N, R23W
S-3007-11-2; Jan 3 2017 12:46PM - TORID

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-12-2

EXPIRATION DATE: 09/30/2016

SECTION: NE25 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,000 BBL FIXED ROOF PETROLEUM STOCK TANK (RIPLEY TRUST LEASE)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623] Federally Enforceable Through Title V Permit
2. Emissions from this tank shall not exceed 4.8 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Throughput for this tank shall not exceed 200 bbl/day on a monthly average. [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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [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. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be 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

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-13-1

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

160 BBL OPEN TOP PETROLEUM WASH TANK (RIPLEY TATUM LEASE)

PERMIT UNIT REQUIREMENTS

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

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-14-4

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATIONAL CO. NATURAL GAS/PROPANE/PRODUCTION GAS-FIRED STEAM GENERATOR WITH A MAGNA FLAME MODEL 4231 G-LE ULTRA LOW NOX BURNER AND FLUE GAS RECIRCULATION (S/N S8736)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modifications(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. When designated as a dormant emissions unit the fuel supply line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit if unit has not been previously source tested as per schedule required by Rule 4320. [District Rule 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
4. Operators shall notify the District at least seven (7) calendar days prior to commencing operation of this dormant emissions unit, at which time this permit will be administratively modified to remove DEU references. [District Rule 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
5. 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
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. Sulfur removal equipment shall be installed as necessary to ensure that gaseous fuels other than propane contain no more than 1.0 gr S/100 scf before combustion. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
8. The unit shall only be fired on PUC-quality natural gas, propane, or produced/TEOR gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
9. Sulfur content of propane shall not exceed 15 grain per 100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. Sulfur content of combusted produced/TEOR gas shall not exceed 1 gr S/ 100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
11. When fired on natural gas or produced/TEOR gas, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.005145 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S-SE23, T11N, R23W
S-3007-14-4: Jan 3 2017 12:46PM - TORID

12. When fired on propane, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NO_x @ 3% O₂ or 0.008 lb-NO_x/MMBtu, 0.0166 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, 50 ppmvd CO @ 3% O₂ or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
13. Upon recommencing operation, permittee shall determine sulfur content of scrubbed produced gas weekly for eight consecutive weeks. Once eight (8) consecutive weekly tests show compliance, the fuel sulfur content testing frequency may be reduced to semi-annually. If a semi-annual test shows violation of the sulfur content limit, then weekly testing shall resume and continue until eight (8) consecutive tests show compliance. Once compliance is shown on eight (8) consecutive weekly tests, then testing may return to semi-annually. Weekly gas analysis shall be performed using Draeger tubes and semi-annual analysis using ASTM method D3246 or double GC for H₂S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [District Rules 1081, 2201, 4320] Federally Enforceable Through Title V Permit
14. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rules 1081, 2201, 4320] Federally Enforceable Through Title V Permit
15. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
16. Upon recommencing operation, 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
17. 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
18. 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
19. Upon recommencing operation, 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

20. Compliance with the fuel gas sulfur compound concentration requirement may be demonstrated by firing the unit only on PUC regulated natural gas, or by fuel analysis. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
22. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
23. 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
24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
25. Upon recommencing operation, source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D1072, ASTM D3246, ASTM D6228 (GC-FPD) or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
27. 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
28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, 4320, and 40 CFR 60.48c (i)] Federally Enforceable Through Title V Permit
29. Permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-18-2

EXPIRATION DATE: 09/30/2016

EQUIPMENT DESCRIPTION:

250 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH PV VENT (RIPLEY-TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623] Federally Enforceable Through Title V Permit
2. Emissions from this tank shall not exceed 2.2 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Throughput for this tank shall not exceed 100 bbl/day on a monthly average. [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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [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. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be 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

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S-SE23, T44N, R23W
S-3007-18-2: Jan 3 2017 12:46PM - TORID

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-19-1

EXPIRATION DATE: 09/30/2016

SECTION: SE23 TOWNSHIP: 11N RANGE: 23W

EQUIPMENT DESCRIPTION:

250 BBL FIXED ROOF CRUDE OIL DRAIN TANK WITH PV VENT (RIPLEY TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Crude oil throughput shall not exceed 5 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] 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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [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. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. All records shall be 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

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE28, T11N, R23W
S-3007-19-1 : Jan 3 2017 12:46PM -- TORID

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-20-1

EXPIRATION DATE: 09/30/2016

SECTION: SE23 TOWNSHIP: 11N RANGE: 23W

EQUIPMENT DESCRIPTION:

300 BBL FIXED ROOF CONSTANT LEVEL CRUDE OIL CLARIFIER TANK WITH P/V VENT (RIPLEY TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Tank shall be operated at a constant level. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] 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 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 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. 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 2201] Federally Enforceable Through Title V Permit
10. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit

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

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

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE28, T11N, R23W
8-3007-20-1 : Jan 3 2017 12:49PM - TORID

DRAFT

Attachment A
Detailed Facility Report

Detailed Facility Report
For Facility=3007 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

SENECA RESOURCES CORPORATION	FAC #	S 3007	TYPE:	TitleV	EXPIRE ON:
HEAVY OIL WESTERN	STATUS:	A	TOXIC ID:	50285	AREA:
MIDWAY SUNSET OIL FIELD S SE23, T11N, R23W	TELEPHONE:	6616542600			INSP. DATE:
					09/30/2016
					104 /
					01/17

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-3007-1-3	42,000 GAL TANK	3020-05 C	1	149.00	149.00	A	1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #5382 (RIPLEY-TATUM LEASE)
S-3007-2-2	42,000 GAL TANK	3020-05 C	1	149.00	149.00	A	1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #5386 (RIPLEY-TATUM LEASE)
S-3007-3-2	1.9 MMBTU/HR	3020-02 E	1	451.00	451.00	A	1.9 MMBTU/HR VERTICAL HEATER FIRED ON LEASE GAS (RIPLEY-TATUM LEASE)
S-3007-4-0	0.5 MMBTU/HR HEATER	3020-02 C	1	217.00	217.00	A	0.5 MMBTU/HR TANK HEATER FIRED ON LEASE GAS (RIPLEY-TATUM LEASE)
S-3007-5-2	42,000 GALLON TANK	3020-05 C	1	149.00	149.00	A	1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #30 (RIPLEY TATUM LEASE)
S-3007-6-3	21,000 gallons	3020-05 C	1	149.00	149.00	A	500 BBL FIXED ROOF CRUDE OIL STOCK TANK #2 (RIPLEY TATUM LEASE)
S-3007-7-1	21,000 GALLON TANK	3020-05 C	1	149.00	149.00	A	500 BBL FIXED ROOF CRUDE OIL STOCK TANK #3 (RIPLEY-TATUM LEASE)
S-3007-8-6	25.2 MMBTU/HR	3020-02 H	1	1,128.00	1,128.00	A	25.2 MMBTU/HR NATIONAL CO S/N S8736 NATURAL GAS/PROPANE/PRODUCTION GAS-FIRED STEAM GENERATOR WITH BURNER DIFFUSER PLATE AND FLUE GAS RECIRCULATION (FGR)
S-3007-9-4	99 CYCLIC WELLS	3020-09S A	99	5.12	506.88	A	THERMALLY ENHANCED OIL RECOVERY OPERATION INCLUDING 99 CYCLICALLY STEAMED ENHANCED CRUDE OIL PRODUCTION WELLS WITH CASING COLLECTION SYSTEM CONNECTED TO SALES GAS PIPELINE AND OPTIONAL SULFUR REMOVAL SYSTEM
S-3007-10-0	31,500 GALLONS	3020-05 C	1	149.00	149.00	A	750 BBL FIXED ROOF PETROLEUM WASH TANK (RIPLEY TRUST LEASE)
S-3007-11-1	21,000 GALLON, SMALL PRODUCER	3020-05 C	1	149.00	149.00	A	500 BBL FIXED ROOF PETROLEUM STOCK TANK (RIPLEY TRUST LEASE)
S-3007-12-1	42,000 GALLON, SMALL PRODUCER	3020-05 C	1	149.00	149.00	A	1,000 BBL FIXED ROOF PETROLEUM STOCK TANK (RIPLEY TRUST LEASE)
S-3007-13-0	6,720 GALLONS	3020-05 C	1	149.00	149.00	A	160 BBL OPEN TOP PETROLEUM WASH TANK (RIPLEY TATUM LEASE)
S-3007-14-2	62.5 MMBTU/HR	3020-02 H	1	1,128.00	1,128.00	A	62.5 MMBTU/HR NATIONAL CO NATURAL GAS/PROPANE/PRODUCTION GAS-FIRED STEAM GENERATOR WITH A MAGNA FLAME MODEL 4231 G-LE ULTRA LOW NOX BURNER AND FLUE GAS RECIRCULATION (S/N S8736)
S-3007-18-1	10,500 gallon tank	3020-05 B	1	103.00	103.00	A	250 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH PV VENT (RIPLEY-TATUM LEASE)
S-3007-19-0	10,500 gallon tank	3020-05 B	1	103.00	103.00	A	250 BBL FIXED ROOF CRUDE OIL DRAIN TANK WITH PV VENT (RIPLEY TATUM LEASE)

Attachment B

Current Permit to Operate

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-1-3

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #5382 (RIPLEY-TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rules 2201 & 4623]
4. Emissions from this tank shall not exceed 4.8 lb VOC/day. [District Rule 2201]
5. Throughput for this tank shall not exceed 200 bbl/day on a monthly average. [District Rule 2201]
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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623]
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]
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]
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]
10. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be retained for a period of at least five years and made available for District 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-3007-2-2

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #5386 (RIPLEY-TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623]
4. Emissions from this tank shall not exceed 4.8 lb VOC/day. [District Rule 2201]
5. Throughput for this tank shall not exceed 200 bbl/day on a monthly average. [District Rule 2201]
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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623]
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]
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]
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]
10. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be retained for a period of at least five years and made available for District 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-3007-3-2

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1.9 MMBTU/HR VERTICAL HEATER TREATER FIRED ON LEASE GAS (RIPLEY-TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. Orifice plates shall have a visible ID tab to confirm orifice plate installation and orifice plate sizing. [District Rule 2050]
2. Particulate matter emissions from any combustion source shall not exceed 0.1 grains/dscf (calculated to 12% carbon dioxide). [District Rule 4301]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. The sulfur compounds concentration in the fuel gas shall not exceed 1 grain S/100 dscf (17 ppmv H₂S). [District Rules 2201 and 4801]
6. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 83 ppmvd NO_x @ 3% O₂ or 0.1 lb-NO_x/MMBtu, 0.003 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, 115 ppmvd CO @ 3% O₂ or 0.084 lb-CO/MMBtu, 13 ppmvd VOC @ 3% O₂ or 0.0055 lb-VOC/MMBtu. [District Rules 2201 and 4801]
7. Testing to demonstrate compliance with the production gas fuel sulfur content limit shall be conducted weekly. Once eight (8) consecutive weekly tests show compliance, the fuel sulfur content testing frequency may be reduced to semi-annually. If a semi-annual test shows violation of the sulfur content limit, then weekly testing shall resume and continue until eight (8) consecutive tests show compliance. Once compliance is shown on eight (8) consecutive weekly tests, then testing may return to semi-annually. [District Rule 2201]
8. Sulfur content of the production gas being fired in the heater treater shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or double GC for H₂S and mercaptans. [District Rule 1081]

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE23, T11N, R23W
S-3007-3-2; Jan 3 2017 12:44PM - TORID

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-4-0

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

0.5 MMBTU/HR TANK HEATER FIRED ON LEASE GAS (RIPLEY-TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. To maintain status as small producer permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern County and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rule 1020]
5. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
6. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE23, T11N, R23W
S-3007-4-0 - Jan 3 2017 12:44PM - TORID

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-5-2

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK #30 (RIPLEY TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623]
4. Emissions from this tank shall not exceed 4.8 lb VOC/day. [District Rule 2201]
5. Throughput for this tank shall not exceed 200 bbl/day on a monthly average. [District Rule 2201]
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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623]
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]
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]
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]
10. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be retained for a period of at least five years and made available for District 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-3007-6-3

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF CRUDE OIL STOCK TANK #2 (RIPLEY TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623]
4. Emissions from this tank shall not exceed 2.4 lb VOC/day. [District Rule 2201]
5. Throughput for this tank shall not exceed 100 bbl/day on a monthly average. [District Rule 2201]
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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623]
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]
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]
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]
10. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be retained for a period of at least five years and made available for District 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-3007-7-1

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF CRUDE OIL STOCK TANK #3 (RIPLEY-TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623]
4. Emissions from this tank shall not exceed 2.4 lb VOC/day. [District Rule 2201]
5. Throughput for this tank shall not exceed 100 bbl/day on a monthly average. [District Rule 2201]
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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623]
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]
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]
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]
10. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be retained for a period of at least five years and made available for District 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-3007-8-6

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

25.2 MMBTU/HR NATIONAL CO S/N S8736 NATURAL GAS/PROPANE/PRODUCTION GAS-FIRED STEAM GENERATOR WITH BURNER DIFFUSER PLATE AND FLUE GAS RECIRCULATION (FGR)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010]
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306]
3. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4306]
4. Operators shall notify the District at least seven (7) calendar days prior to recommencing operation of this dormant emissions unit, at which time this permit will be administratively modified to remove DEU references [District Rule 4306]
5. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. 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]
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
8. Upon recommencing operation, emissions from the natural gas/propane/production gas-fired unit shall not exceed any of the following limits: 15 ppmvd NO_x @ 3% O₂ or 0.018 lb-NO_x/MMBtu, 0.05 lb-SO_x/MMBtu, 0.0044 lb-PM₁₀/MMBtu, 100 ppmvd CO @ 3% O₂ or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306]
9. H₂S concentration shall not exceed 1,000 ppm in lease gas. Testing to measure lease gas sulfur content shall be conducted using ASTM D3246 oxidation combustion microcoulometric or ASTM D6228 double GC for H₂S and mercaptans. [District Rule 1081]
10. Upon recommencing operation, compliance with sulfur limit shall be verified by lease gas sulfur sample no less than every calendar quarter in which the unit is operated. [District Rule 1081]
11. Upon recommencing operation, 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.

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE23, T11N, R23W
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12. 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]
13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306]
14. 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]
15. Upon recommencing operation, source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306]
16. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
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 and 4306]
19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]
20. 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]
21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306]
22. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306]
23. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of recommencing operation of this unit. [District Rules 2201, 4305, and 4306]
24. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081]
25. Permittee shall maintain records of volume of fuel gas burned and lease gas incinerated, calendar quarterly lease and fuel gas sulfur content and BTU content. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

26. Upon recommencing operation, 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]
27. Upon recommencing operation, the permittee shall maintain records of fuel hhv, lease gas sulfur content and cumulative annual fuel use. [District Rule 2201]
28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-9-4

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY OPERATION INCLUDING 99 CYCLICALLY STEAMED ENHANCED CRUDE OIL PRODUCTION WELLS WITH CASING COLLECTION SYSTEM CONNECTED TO SALES GAS PIPELINE AND OPTIONAL SULFUR REMOVAL SYSTEM

PERMIT UNIT REQUIREMENTS

1. 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Vapors from the well vents shall be treated by SulfaTreat system prior to incineration. [District Rule 2201]
4. Sulfa Treat system shall be used as necessary to ensure that sulfur content of gas combusted in steam generator S-3007-14 shall not exceed 1 gr S/ 100 scf. [District Rule 2201]
5. Well vent vapor from this operation shall only be incinerated in vapor control equipment listed in permits S-3007-3, -4, -8, -14 or -15. [District Rule 2201]
6. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. [District Rule 2201]
7. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]
8. A leak shall be defined as a reading on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppmv when measured in accordance with EPA Method 21. [District Rule 4401]
9. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 2201]
10. Permittee shall maintain accurate component count for TEOR operation according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors. Permittee shall update such records when new components are installed. [District NSR Rule]
11. Fugitive VOC emission rate shall not exceed 2.3 lb/day. [District NSR Rule]
12. To maintain status as small producer permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern County and permittee shall not engage in refining, transporting or marketing of refined petroleum products. [District Rule 1020]
13. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
14. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE23, T11N, R23W
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15. The permittee shall keep accurate records of component counts for a period of five years and shall make such records available for District inspection upon request. [District Rule 2201]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-10-0

EXPIRATION DATE: 09/30/2016

SECTION: NE25 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

750 BBL FIXED ROOF PETROLEUM WASH TANK (RIPLEY TRUST LEASE)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
3. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
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. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
11. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-11-1

EXPIRATION DATE: 09/30/2016

SECTION: NE25 TOWNSHIP: 11N RANGE: 23W

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF PETROLEUM STOCK TANK (RIPLEY TRUST LEASE)

PERMIT UNIT REQUIREMENTS

1. 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623]
4. Emissions from this tank shall not exceed 2.4 lb VOC/day. [District Rule 2201]
5. Throughput for this tank shall not exceed 100 bbl/day on a monthly average. [District Rule 2201]
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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623]
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]
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]
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]
10. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be retained for a period of at least five years and made available for District 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-3007-12-1

EXPIRATION DATE: 09/30/2016

SECTION: NE25 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

1,000 BBL FIXED ROOF PETROLEUM STOCK TANK (RIPLEY TRUST LEASE)

PERMIT UNIT REQUIREMENTS

1. 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623]
4. Emissions from this tank shall not exceed 4.8 lb VOC/day. [District Rule 2201]
5. Throughput for this tank shall not exceed 200 bbl/day on a monthly average. [District Rule 2201]
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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623]
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]
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]
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]
10. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be retained for a period of at least five years and made available for District 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-3007-13-0

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

160 BBL OPEN TOP PETROLEUM WASH TANK (RIPLEY TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
3. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
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. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
11. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-14-2

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATIONAL CO. NATURAL GAS/PROPANE/PRODUCTION GAS-FIRED STEAM GENERATOR WITH A MAGNA FLAME MODEL 4231 G-LE ULTRA LOW NOX BURNER AND FLUE GAS RECIRCULATION (S/N S8736)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modifications(s), except for changes specified in conditions below. [District Rule 2010]
2. When designated as a dormant emissions unit the fuel supply line shall be physically disconnected from this unit. [District Rule 2080]
3. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit if unit has not been previously source tested as per schedule required by Rule 4320. [District Rule 4305, 4306, and 4320]
4. Operators shall notify the District at least seven (7) calendar days prior to commencing operation of this dormant emissions unit, at which time this permit will be administratively modified to remove DEU references. [District Rule 4305, 4306, and 4320]
5. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. 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]
8. Sulfur removal equipment shall be installed as necessary to ensure that gaseous fuels other than propane contain no more than 1.0 gr S/100 scf before combustion. [District Rules 2201 and 4320]
9. The unit shall only be fired on PUC-quality natural gas, propane, or produced/TEOR gas. [District Rule 2201]
10. Sulfur content of propane shall not exceed 15 grain per 100 scf. [District Rule 2201]
11. Sulfur content of combusted produced/TEOR gas shall not exceed 1 gr S/ 100 scf. [District Rule 2201]
12. When fired on natural gas or produced/TEOR gas, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]
13. When fired on propane, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.0166 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE23, T11N, R23W
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14. Upon recommencing operation, permittee shall determine sulfur content of scrubbed produced gas weekly for eight consecutive weeks. Once eight (8) consecutive weekly tests show compliance, the fuel sulfur content testing frequency may be reduced to semi-annually. If a semi-annual test shows violation of the sulfur content limit, then weekly testing shall resume and continue until eight (8) consecutive tests show compliance. Once compliance is shown on eight (8) consecutive weekly tests, then testing may return to semi-annually. Weekly gas analysis shall be performed using Draeger tubes and semi-annual analysis using ASTM method D3246 or double GC for H₂S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [District Rules 1081 and 2201]
15. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rules 1081 and 2201]
16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320]
17. Upon recommencing operation, 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]
18. 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]
19. 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]
20. Upon recommencing operation, 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]
21. Compliance with the fuel gas sulfur compound concentration requirement may be demonstrated by firing the unit only on PUC regulated natural gas, or by fuel analysis. [District Rule 2201]
22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320]
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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320]
25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
26. Upon recommencing operation, source testing to measure NO_x and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320]
27. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D1072, ASTM D3246, ASTM D6228 (GC-FPD) or double GC for H₂S and mercaptans. [District Rules 1081, 4305, 4306, and 4320]
28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320]
29. On and after July 1, 2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-18-1

EXPIRATION DATE: 09/30/2016

EQUIPMENT DESCRIPTION:

250 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH P/V VENT (RIPLEY-TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.2 psia under all storage conditions. [District Rule 2201 & 4623]
4. Emissions from this tank shall not exceed 2.2 lb VOC/day. [District Rule 2201]
5. Throughput for this tank shall not exceed 100 bbl/day on a monthly average. [District Rule 2201]
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 Rule 4623. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623]
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]
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]
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]
10. Operator shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 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. All records shall be retained for a period of at least five years and made available for District 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-3007-19-0

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

250 BBL FIXED ROOF CRUDE OIL DRAIN TANK WITH PV VENT (RIPLEY TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
3. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
4. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623]
5. Crude oil throughput shall not exceed 5 barrels per day based on a monthly average. [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 Rules 2201 and 4623]
7. 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 2201]
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]

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

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE23, T11N, R23W
S-3007-19-0 : Jan 3 2017 12:44PM - TORID

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3007-20-0

EXPIRATION DATE: 09/30/2016

SECTION: SE23 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

300 BBL FIXED ROOF CONSTANT LEVEL CRUDE OIL CLARIFIER TANK WITH P/V VENT (RIPLEY TATUM LEASE)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
3. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
4. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623]
5. Tank shall be operated at a constant level. [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 Rules 2201 and 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 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. 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]
11. 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]
12. 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 2201]
13. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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.

Facility Name: SENECA RESOURCES CORPORATION
Location: HEAVY OIL WESTERN, MIDWAY SUNSET OIL FIELD S SE23, T11N, R23W
S-3007-20-0: Jan 3 2017 12:44PM - TORID