

February 4, 2022

Mr. John Haley
Aera Energy LLC
PO Box 11164
Bakersfield, CA 93389-1164

Re: Notice of Preliminary Decision – Title V Permit Renewal
Facility Number: S-1135
Project Number: S-1203912

Dear Mr. Haley:

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

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the renewed Federally Mandated Operating Permit. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Errol Villegas, Permit Services Manager, at (559) 230-5900.

Sincerely,



Brian Clements
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email
cc: Laura Yannayon, EPA (w/enclosure) via EPS

Samir Sheikh
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**SAN JOAQUIN VALLEY
AIR POLLUTION CONTROL DISTRICT**

**Proposed Title V Permit Renewal Evaluation
AERA ENERGY LLC
C-1135**

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TITLE V PERMIT RENEWAL EVALUATION

Heavy Oil Production

Engineer: Mungi Hong
Date: February 4, 2022

Facility Number: S-1135
Facility Name: Aera Energy LLC
Mailing Address: PO Box 11164
Bakersfield, CA 93389-1164

Contact Name: James Cooke
Phone: (661) 665-5029

Responsible Official: John Haley
Title: EHS Lead, Air Quality

Project # : S-1203912
Deemed Complete: October 1, 2020

I. PROPOSAL

Aera Energy LLC was issued its last renewed Title V permit on March 13, 2017. As required by District Rule 2520, the applicant has applied to renew their Title V permit. The existing Title V permit shall be reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the issuance of the previously renewed Title V permit.

According to EPA policy, annual emission limits must be practically enforceable, and goes on to say that to be practically enforceable, annual limits must be enforced on a short-term basis.

The District has developed conditions regarding practically enforceable annual emission and throughput limits. Therefore, the conditions that have been modified and/or added to the permits at this facility are listed in the following table:

Permit Unit	Condition #
S-1135-5-41	9 and 11
S-1135-6-38	9, 11, and 13
S-1135-12-45	9 and 11
S-1135-26-47	9, 11, 12, and 14
S-1135-224-31	30 and 31
S-1135-225-30	30 and 31
S-1135-226-29	30 and 31
S-1135-231-7	12
S-1135-235-5	17
S-1135-266-22	6, 8 and 10
S-1135-267-20	11 and 13
S-1135-299-15	4 and 6
S-1135-302-16	10 and 12
S-1135-305-15	10 and 12

The purpose of this evaluation is to provide the legal and factual basis for all updated applicable requirements and to determine if the facility will comply with these updated requirements. It also specifically identifies all additions, deletions, and/or changes made to permit conditions or equipment descriptions.

II. FACILITY LOCATION

Aera Energy LLC is located within the Midway Sunset Oil Field, Heavy Oil Western Production Stationary Source in Kern County.

III. EQUIPMENT LISTING

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

IV. GENERAL PERMIT TEMPLATE USAGE

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

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

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

V. SCOPE OF EPA AND PUBLIC REVIEW

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

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

The following permit conditions, including their underlying applicable requirements, originate from model general permit templates and are not subject to further EPA or public review.

Conditions 1 through 40 of the requirements for permit unit S-1135-0-5.

Please note, conditions #8 and #23 listed on S-1135-0-5 were modified and were approved by EPA under District projects S-1032149 and S-1064857, respectively. Therefore, these two conditions are not subject to EPA review during this Title V renewal. The modifications are shown below in **bold**.

- The operator shall maintain records of required monitoring, **where applicable**, that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1]
- No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating **not exempt as allowed by Sections 4.1 and 4.2 of Rule 4601** with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1]

VI. FEDERALLY ENFORCEABLE REQUIREMENTS

Rules Addressed by General Permit Template

- District Rule 2010, Permits Required (amended December 17, 1992)

- District Rule 2020, Exemptions (amended December 18, 2014)¹
- District Rule 2031, Transfer of Permits (amended December 17, 1992)
- District Rule 2070, Standards for Granting Applications, Section 7.0 (amended December 17, 1992)
- District Rule 2080, Conditional Approval (amended December 17, 1992)
- 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, 10.0 (amended June 21, 2001 ⇒ amended August 15, 2019)
- District Rule 4101, Visible Emissions (amended February 17, 2005)
- District Rule 8021, Construction, Demolition Excavation, Extraction, and Other Earthmoving Activities (amended August 19, 2004)
- District Rule 8031, Bulk Materials (amended August 19, 2004)
- District Rule 8041, Carryout and Trackout (amended August 19, 2004)
- District Rule 8051, Open Areas (amended August 19, 2004)
- District Rule 8061, Paved and Unpaved Roads (amended August 19, 2004)
- District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas (amended September 16, 2004)
- 40 CFR Part 61, Subpart M, National Emission Standards for Asbestos (amended July 20, 2004)

Rules Not Addressed by General Permit Template

A. Rules Updated or Evaluated

- District Rule 2201, New and Modified Stationary Source Review Rule (amended February 18, 2016 ⇒ amended August 15, 2019)
- District Rule 2520, Federally Mandated Operating Permits (amended June 21, 2001 ⇒ amended August 15, 2019)

¹ The amendments made to this rule on August 18, 2011 and December 18, 2014 have no impact on this source; therefore, Template SJV-UM-03 is still valid for this project.

- District Rule 4306, Boilers, Steam Generators, and Process Heaters – Phase 3 (amended October 16, 2008 ⇒ amended December 17, 2020)
- District Rule 4320, Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater Than 5.0 MMBTU/HR (adopted October 16, 2008 ⇒ amended December 17, 2020)
- District Rule 4601, Architectural Coatings (amended December 17, 2009 ⇒ amended April 16, 2020)
- District Rule 4702, Internal Combustion Engines (amended November 14, 2013 ⇒ amended August 19, 2021)
- 40 CFR Part 60, Subpart A, General Provisions (amended October 7, 2020)
- 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (amended February 16, 2012)
- 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 (amended January 19, 2021)
- 40 CFR Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification, or Reconstruction Commenced After August 23, 2011, and on or Before September 18, 2015 (amended September 14, 2020)
- 40 CFR Part 63, Subpart HH, National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities (amended November 19, 2020)
- 40 CFR Part 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (amended March 9, 2020)
- 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (amended December 4, 2020)
- 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (amended December 28, 2020)

- 40 CFR Part 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and institutional Boilers Area Sources (amended September 14, 2016)
- 40 CFR Part 64, Compliance Assurance Monitoring (amended October 22, 1997)
- 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners (amended March 24, 2021)
- 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction (amended April 10, 2020)

B. Rules Removed

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

C. Rules Added

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

D. Rules Not Updated

- District Rule 1070, Inspections (amended December 17, 1992)
- District Rule 1081, Source Sampling (amended December 16, 1993)
- District Rule 1110, Circumvention (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 4401, Steam-Enhanced Crude Oil Production Wells (amended June 19, 2011)
- District Rule 4407, In-Situ Combustion Well Vents (adopted May 19, 1994)
- District Rule 4623, Storage of Organic Liquids (amended May 19, 2005)

- District Rule 4701, Internal Combustion Engines – Phase 1 (amended August 21, 2003)
- District Rule 4703, Stationary Gas Turbines (amended September 20, 2007)
- District Rule 4801, Sulfur Compounds (amended December 17, 1992)
- 40 CFR Part 60, Subpart GG, Standards of Performance for Stationary Gas Turbines (amended February 27, 2014)

VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

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

For this facility, the following are not federally enforceable and will not be discussed in further detail:

Rules Addressed by General Permit Template

- District Rule 1100, Equipment Breakdown (amended December 17, 1992)
- District Rule 1160, Emission Statements (adopted November 18, 1992)
- District Rule 2040, Applications (amended December 17, 1992)

Rules Not Addressed by General Permit Template

A. Rules Added/Updated

There are no rules that are not federally enforceable being added or updated at this time.

B. Rules Not Updated

The purpose of the following rule discussions is to indicate any conditions that are based solely on non-federally enforceable requirements are properly labeled as non-federally enforceable on the permit. Aside from the federal enforceability label, no change to any permit requirements are being proposed.

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

The purpose of this rule is to protect the health and safety of the public, and this rule applies to any source operation which emits or may emit air contaminants or other materials. The following conditions are based on this rule:

Permit Unit	Condition #
S-1135-0-5	41 and 47
S-1135-224-31	28
S-1135-225-30	28
S-1135-226-29	28

However, Condition #47 of permit unit S-1135-0-5 is also required to demonstrate compliance with District Rules 4101 and 4301, which are Federally Enforceable. Therefore, only the following condition is not federally enforceable through Title V:

Permit Unit	Condition #
S-1135-0-5	41
S-1135-224-31	28
S-1135-225-30	28
S-1135-226-29	28

2. District Rule 4405, Oxides of Nitrogen Emissions from Existing Steam Generators Used in Thermally Enhanced Oil Recovery – Central and Western Kern County Fields (amended December 17, 1992)

The purpose of this rule is to limit NOx emissions from oil field steam generators. This rule also specifies an implementation schedule. The following condition is based on this rule:

Permit Unit	Condition #
S-1135-0-5	47

However, as seen above, condition #47 of permit unit S-1135-0-5 is also required to demonstrate compliance with District Rules 4101 and 4301, which are Federally Enforceable. Therefore, this condition is federally enforceable through Title V.

3. District Rule 4406, Sulfur Compounds from Oil-Field Steam Generators – Kern County (amended December 17, 1992)

The purpose of this rule is to limit the emissions of sulfur from oil field steam generators in Kern County. The following condition is based on this rule:

Permit Unit	Condition #
S-1135-0-5	47

As seen above, condition #47 of permit unit S-1135-0-5 is also required to demonstrate compliance with District Rules 4101 and 4301, which are Federally Enforceable. Therefore, this condition is federally enforceable through Title V.

4. California Code of Regulation, Title 17, Division 3, Chapter 1, Subchapter 7.5, §93115 - Airborne Toxic Control Measures for Stationary Compression Ignition (CI) Engines (amended May 19, 2011)

The purpose of this airborne toxic control measure (ATCM) is to reduce diesel particulate matter (PM) and criteria pollutant emissions from stationary diesel-fueled compression ignition (CI) engines. The following conditions are based on this regulation.

Permit Unit	Condition #
S-1135-231-7	1, 10, 11, and 13

Condition 1

However, condition #1 of permit unit S-1135-231-7 is also required to demonstrate compliance with District Rules 2201 and 4801, which are Federally Enforceable. Therefore, this condition is federally enforceable through Title V.

Conditions 11 and 13

However, conditions #11 and #13 of permit unit S-1135-231-7 are also required to demonstrate compliance with District Rule 4702, which is Federally Enforceable. Therefore, these conditions are federally enforceable through Title V.

Therefore, only the following condition is not federally enforceable through Title V:

Permit Unit	Condition #
S-1135-231-7	10

VIII. PERMIT REQUIREMENTS

The purpose of this evaluation is to review changes to federally enforceable requirements; therefore, this compliance section will only address rules that have been amended or added since the issuance of the initial Title V permit or most recent renewal of the Title V permit.

A. District Rule 2201 - New and Modified Stationary Source Review Rule

District Rule 2201 has been amended since this facility's Title V permit was last renewed. However, the requirements of this rule are only triggered when a source installs new equipment and/or undergoes a modification. All applicable requirements from any NSR permit actions have already been incorporated into the current Title V permit. Therefore, the updated requirements of this rule are not applicable at this time.

B. District Rule 2520 - Federally Mandated Operating Permits

District Rule 2520 has been amended since this facility's Title V permit was last renewed. The amendments to this rule were administrative, relating only to the notification procedures for Title V permit modifications that are required to go through a public notice. The amendments to this rule did not have any effect on current permit requirements and will therefore not be addressed further in this evaluation. However, greenhouse gas emissions will be addressed under Rule 2520 during this renewal.

Greenhouse Gas Discussion

There are no federally applicable Greenhouse Gas (GHG) requirements for this source. It should be noted that the Mandatory Greenhouse Gas Reporting rule (40 CFR Part 98) is not included in the definition of an applicable requirement within Title V (per 40 CFR 71.2). Therefore, there will be no further discussion of GHG in this evaluation.

C. District Rule 4306 - Boilers, Steam Generators, and Process Heater – Phase 3

District Rule 4306 was amended on December 17, 2020. However, the amended rule is not SIP-approved by EPA. The previous version of this rule (amended October 16, 2008) is SIP-approved and was addressed by the

District's previous permit renewal (S-1064857). Therefore, changes to the rule do not affect the current permit.

D. District Rule 4320 - Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater Than 5.0 MMBTU/HR

District Rule 4320 was amended on December 17, 2020. However, the amended rule is not SIP-approved by EPA. The previous version of this rule (adopted October 16, 2008) is SIP-approved and was addressed by the District's previous permit renewal (S-1064857). Therefore, changes to the rule do not affect the current permit.

E. District Rule 4601 – Architectural Coatings

District Rule 4601 was amended on April 16, 2020. However, the amended rule is not SIP-approved by EPA. The previous version of this rule (amended December 17, 2009) is SIP-approved and is addressed by the District's facility-wide umbrella template. Therefore, template SJV-UM-0-3 is still valid for this project.

F. District Rule 4702 – Internal Combustion Engines

District Rule 4702 was amended on August 19, 2021. However, the amended rule is not SIP-approved by EPA. The previous version of this rule (amended November 14, 2013) is SIP-approved and was addressed by the District's previous permit renewal (S-1154008). Therefore, changes to the rule do not affect the current permit.

G. 40 CFR Part 60, Subpart A - General Provisions

The provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility, except as provided in subparts B and C.

The amendments to this subpart do not result in a modification to the current permit requirements included in the following table. Therefore, the modifications to this subpart will not be addressed any further in this evaluation.

Permit Unit	Condition #
S-1135-224-31	41
S-1135-225-30	41
S-1135-226-29	41

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

The affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h), except as provided in paragraphs (d), (e), (f), and (g) of this section.

Permit unit S-1135-5 commenced construction, modification, or reconstruction prior to June 19, 1989; therefore, the unit is not subject to this subpart. The steam generators, except permit unit S-1135-5, in this facility are applicable to this subpart.

The steam generators in this facility are fired on natural gas; therefore, requirements of Sections 60.42c through 60.47c are not applicable.

Section 60.48c(g) requires the owner or operator of each affected facility record and maintain records of the amount of each fuel combusted during each operating day. Therefore, this section will be referenced in the following conditions.

Permit Unit	Condition #
S-1135-6-38	10 and 11
S-1135-12-45	10 and 11
S-1135-26-47	10 and 11

The above requirements have been omitted unintentionally in permit units S-1135-266, '-267, '-299, '-302, and '-305. Therefore, the requirements will be included in the draft renewed permits, as seen in the below table, to ensure compliance with the requirements of this subpart.

Permit Unit	Condition #
S-1135-266-22	7
S-1135-267-20	12
S-1135-299-15	5
S-1135-302-16	11
S-1135-305-15	11

Also, as required by this section, the facility is required to maintain daily records of the type and quantity of fuel combusted by each affected facility; however, these requirements have been omitted inadvertently. Therefore, the following condition will be placed on the draft renewed permits to ensure compliance with the requirements of this subpart.

- The permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [40 CFR 60.48c(g)]

Permit Unit	Condition #
S-1135-6-38	17
S-1135-12-45	17
S-1135-26-47	17
S-1135-266-22	12
S-1135-267-20	15
S-1135-299-15	8
S-1135-302-16	14
S-1135-305-15	14

I. 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

Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m³) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

Pursuant to Section 60.110b(d)(4), vessels with a design capacity less than or equal to 1,589.874 m³ used for petroleum or condensate stored, processed, or treated prior to custody transfer are not subject to this subpart. Since the vessels at this facility have a capacity less than 1,589.874 m³ (equal to 10,000 barrel) each, and store petroleum prior to custody transfer, this subpart is not applicable.

J. 40 CFR Part 60, Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced After August 23, 2011, and on or before September 18, 2015

The provisions of this subpart are applicable to the owner or operator of one or more of the onshore affected facilities listed in Sections 60.5365(a) through (g) of this subpart that is located within the Crude Oil and Natural Gas Production source category, as defined in Section 60.5430 which commenced construction, modification, or reconstruction after August 23, 2011, and or before September 18, 2015. There are storage vessels associated with this facility; therefore, this subpart is potentially applicable.

Pursuant to Section 60.5365(e), each storage vessel affected facility, which is a single storage vessel, and has the potential for VOC emissions equal to or greater than 6 tons per year (tpy) as determined according to this section, is subject to this subpart. However, potential VOC emissions from the storage vessels at this facility are less than 6 tpy each; therefore, this subpart is not applicable.

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

This subpart applies to the owners and operators of the emission points, specified in paragraph (b) of this section that are located at oil and natural gas production facilities that meet the specified criteria in paragraphs (a)(1) and either (a)(2) or (a)(3) of this section.

Pursuant to Section 63.760(e)(1), a facility that exclusively processes, stores, or transfers black oil² is not subject to the requirements of this subpart. For the purposes of this subpart, a black oil facility that uses natural gas for fuel or generates gas from black oil shall qualify for this exemption. The facility processes, stores, or transfers black oil; therefore, this subpart is not applicable.

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

Subpart YYYY establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emissions from stationary combustion turbines located at major sources of HAP emissions, and requirements to demonstrate initial and continuous compliance with the emission and operating limitations.

² Pursuant to Section 63.761, black oil means hydrocarbon (petroleum) liquid with an initial producing gas-to oil ratio (GOR) less than 0.31 cubic meters per liter and an API less than 40 degrees.

The owner or operator of a stationary combustion turbine located at a major source of HAP emissions. Pursuant to Section 63.6085, a major source of HAP emissions is a contiguous site under common control that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site. Since this facility is an oil production facility, a major source of HAP emissions is determined for each surface site.

The facility operates all 3 stationary combustion turbines (S-1135-224, '-225, and '-226) in one surface site, and they are potentially subject to this subpart. The facility has provided potential HAP emissions from these turbines based on AP-42 Section 3.1 *Stationary Gas Turbines*. The emission factors in the table below are for an uncontrolled gas turbine; therefore, the estimate is conservative.

HAP PE from Each Gas-fired Stationary Gas Turbine					
CAS#	Chemical Name	HAP*	Emission Factor (lb/MMBtu)	PE (ton/yr)	Total PE from Three Turbines (ton/yr)
Maximum Rating for Each Steam Generator ³ = 960 MMBtu/hr					
106990	1,3-Butadiene	Y	0.00000043	0.00	0.01
75070	Acetaldehyde	Y	0.00004	0.17	0.50
107028	Acrolein	Y	0.0000064	0.03	0.08
71432	Benzene	Y	0.000012	0.05	0.15
100414	Ethylbenzene	Y	0.000032	0.13	0.40
50000	Formaldehyde	Y	0.00071	2.99	8.96
91203	Naphthalene	Y	0.0000013	0.01	0.02
	PAH	Y	0.0000022	0.01	0.03
75569	Propylene Oxide	Y	0.0000029	0.01	0.04
108883	Toluene	Y	0.00013	0.55	1.64
95476	Xylenes	Y	0.000064	0.27	0.81
Total PE					12.64

*Based on the list of HAPs published on the EPA website (<https://www.epa.gov/haps/initial-list-hazardous-air-pollutants-modifications>).

As seen above, total HAP potential missions from the three turbines do not exceed to 10 tons or more per year for a single HAP or 25 tons or more per year for a combination of HAP. Therefore, this subpart is not applicable.

³ Provided by the facility during District project S-1211652.

M. 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

This subpart establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

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

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

Permit	Condition #
S-1135-231-7	3, 4, 5, 6, 7, 8, and 9
S-1135-235-5	10, 11, 12, 13, 14, 15, and 16

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

This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters located at major sources of HAP. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards.

The owner or operator of an industrial, commercial, or institutional boilers or process heater as defined in Section 63.7575 that is located at, or is part of, a major source of HAP, except as specified in § 63.7491, is subject to this subpart. Since this facility is an oil production facility, a major source of HAP emissions is determined for each surface site.

The facility has four surface sites (Buena Fe, Kendon, Metson, and PRU) with at least one steam generator assigned an S-1135 permit number. Annual heat input limit for each steam generator and for each surface site is summarized in the table below.

Permit Unit	Operation Burner Rating (MMBtu/hr)	Annual Heat Input Limit (MMBtu/yr)	Source
Buena Site		1,095,000	
S-1135-5	62.5	547,500	Permitted Annual Heat Input Limit
S-1135-302	62.5	547,500	Permitted Annual Heat Input Limit ³
Kendon Site		1,971,000	
S-1135-6	62.5	438,000	Permitted Annual Heat Input Limit
S-1135-12	62.5	438,000	Permitted Annual Heat Input Limit
S-1135-267	62.5	547,500	
S-1135-299	62.5	547,500	Permitted Annual Heat Input Limit ⁴
Metson Site		1,539,935	
S-1135-26	62.5	438,000	Permitted Annual Limit
S-1135-266	62.5	554,435	Permitted Annual Heat Input Limit ⁵
S-1547-1089	62.5	547,500	Permitted Annual Heat Input Limit ⁴
PRU Site		547,500	
S-1135-305	62.5	547,500	Permitted Annual Heat Input Limit ³

Based on the above table, the Kendon site has the highest annual heat input rate. Pursuant to the applicant, in 1992 the facility conducted source tests for a number of steam generators to determine emission factors for air toxics for use in reporting for the California AB2588 air toxics inventory program. Emission factors for each HAP and annual emissions are shown in the table below.

CAS#	Chemical Name	HAP*	Emission Factor (lb/MMcf)	PE (ton/yr)**
Kendon Site Annual Heat Input Limit = 1,971,000 MMBtu/yr Higher Heating Value of Natural Gas = 1,020 Btu/scf				
71432	Benzene	Y	0.0016	0.002
108883	Toluene	Y	0.02	0.019
100414	Ethyl benzene	Y	0.012	0.012
95476	o-Xylenes	Y	0.025	0.024
50000	Formaldehyde	Y	0.033	0.032
75070	Acetaldehyde	Y	0.014	0.014
107028	Acrolein	Y	0.014	0.014
115071	Propylene	N	0.6	0.580
91203	Naphthalene	Y	0.000187	0.000
208968	Acenaphthylene	Y	0.00000037	0.000
83329	Acenaphthene	Y	0.00000054	0.000
86737	Fluorene	Y	0.0000024	0.000
85018	Phenanthrene	Y	0.000012	0.000
120127	Anthracene	Y	0.0000024	0.000

⁴ Calculated based on the permitted annual NOx/CO emissions limits and permitted NOx/CO emissions factors.

⁵ Calculated based on the permitted annual NOx emissions limit and permitted NOx emissions factor.

206440	Fluoranthene	Y	0.0000014	0.000
129000	Pyrene	Y	0.000002	0.000
218019	Chrysene	Y	0.00000113	0.000
56553	Benz(a)anthracene	Y	0.0000013	0.000
205992	Benzo(b)fluoranthene	Y	0.00000037	0.000
207089	Benzo(k)fluoranthene	Y	0.00000037	0.000
50328	Benzo(a)pyrene	Y	0.00000037	0.000
193395	Indeno(1,2,3-cd)pyrene	Y	0.00000037	0.000
53703	Dibenzo(a,h)anthracene	Y	0.00000037	0.000
191242	Benzo(g,h,i)perylene	Y	0.00000037	0.000
	PAH	Y	0.000027	0.000
HAP Total				0.117

*Based on the list of HAPs published on the EPA website (<https://www.epa.gov/haps/initial-list-hazardous-air-pollutants-modifications>).

**Kendon Site Annual Heat Input Limit x Emission Factor x Higher Heating Value

As seen in the table above, the potential HAP emissions from the steam generators located at the Kendon site are less than major source thresholds of 10 tons or more per year of any one HAP or 25 tons or more per year of any combination of HAPs. Also, the potential HAP emissions from the remaining steam generators at the other three sites will be lower than that of the steam generators at the Kendon site; therefore, no steam generators are subject to this subpart.

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

The owner or operator of an industrial, commercial, or institutional boiler as defined in § 63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in § 63.2, except as specified in § 63.11195. As seen above, the steam generators associated with this project are not located at, or are part of, a major source of HAP. Therefore, this subpart is potentially applicable.

However, pursuant to Section 63.11195(e) of this subpart, a gas-fired boiler is not subject to this subpart and to any requirements in this subpart. The steam generators in this project are defined as boilers pursuant to Section 63.11237 and are fired on natural gas only. Therefore, the steam generators in this project are not subject to this subpart.

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

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

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

Pollutant	Major Source Threshold (lb/year)
NO _x	20,000
SO _x	140,000
PM ₁₀	140,000
CO	200,000
VOC	20,000

a. Vessel and Tank with Vapor Recovery System

S-1135-3, ‘-29, ‘-70, ‘-71, ‘-72, -149, ‘-150, ‘-151, ‘-173, ‘-174, ‘-175, ‘-178, ‘-270, -281, ‘-284, ‘-285, ‘-286, ‘-287, ‘-301, ‘-322, ‘-323, ‘-325, ‘-326, ‘-327, ‘-328, ‘-329, ‘-330, ‘-331, ‘-332, ‘-333, ‘-334, ‘-335, ‘-336, ‘-337, ‘-339, ‘-346, ‘-347, ‘-348, ‘-349, ‘-350, ‘-351, ‘-353, ‘-354, ‘-355, and ‘-356

- 1) Section 64.1 defines a control device as equipment, other than inherent process equipment, that is used to destroy or remove air pollutant(s) prior to discharge to the atmosphere. Based on District practice, the vapor control system is “inherent process equipment”, i.e. the vapor control system is used to increase the safe and proper functioning of the tank battery. Such a vapor control system serves to reduce emission of H₂S (a toxic substance) from the tank(s) and to reduce corrosion in the tank(s) vapor space by eliminating the intrusion of ambient air. Inherent process equipment is explicitly excluded from the definition of control device as defined in 40 CFR 64. Therefore, this subpart is not applicable for these units.

b. Steam Generator with Flue Gas Recirculation (FGR)

S-1135-5, ‘-6, ‘-267, ‘-299, -302, ‘-305

- 1) Each steam generator has an emissions limit for NO_x, SO_x, PM₁₀, CO, and VOC emissions.

- 2) Each steam generator has an add-on control (FGR) for NOx emissions; therefore, these are potentially subject to CAM requirements for NOx.
- 3) The post-control potential to emit (PE) for NOx for each unit can be calculated as follows:

S-1135-5

$$\begin{aligned}\text{Post-control PE} &= \text{Emission Factor (lb-NOx/MMBtu)} \\ &\quad \times \text{Operation (hours/year)} \times \text{Heat Rating (MMBtu/hr)} \\ &= 0.018 \text{ lb-NOx/MMBtu} \times 8,760 \text{ hours/yr} \times 62.5 \text{ MMBtu/hr} \\ &= 9,855 \text{ lb-NOx/yr}\end{aligned}$$

Based on the analysis in District project S-1154008, the control efficiency of the FGR was determined to be 36%. Thus,

$$\begin{aligned}\text{Pre-control PE} &= \text{Post-control PE (lb-NOx/yr)} \div (1 - \text{CE}) \\ &= 9,855 \text{ lb-NOx/yr} \div (1 - 0.36) \\ &= 15,398 \text{ lb-NOx/yr}\end{aligned}$$

S-1135-6

$$\begin{aligned}\text{Post-control PE} &= \text{Annual Emission Limit (lb-NOx/year)} \\ &= 7,884 \text{ lb-NOx/year}\end{aligned}$$

As seen above, the control efficiency of the FGR is 36%. Thus,

$$\begin{aligned}\text{Pre-control PE} &= \text{Post-control PE (lb-NOx/yr)} \div (1 - \text{CE}) \\ &= 7,884 \text{ lb-NOx/yr} \div (1 - 0.36) \\ &= 12,319 \text{ lb-NOx/yr}\end{aligned}$$

S-1135-267, '-299, '-302, and '-305

$$\begin{aligned}\text{Post-control PE} &= \text{Annual Emission Limit (lb-NOx/year)} \\ &= 9,855 \text{ lb-NOx/year}\end{aligned}$$

As seen above, the control efficiency of the FGR is 36%. Thus,

$$\begin{aligned}\text{Pre-control PE} &= \text{Post-control PE (lb-NOx/yr)} \div (1 - \text{CE}) \\ &= 9,855 \text{ lb-NOx/yr} \div (1 - 0.36) \\ &= 15,398 \text{ lb-NOx/yr}\end{aligned}$$

Since the pre-control PE for each unit is less than the major source threshold of 20,000 lb-NOx/yr, these units are not subject to CAM for NOx emissions.

c. Steam Generator with FGR and/or SO₂ Scrubber

S-1135-12 and '-266

- 1) Each unit has an emission limit for NO_x, SO_x, PM₁₀, CO, and VOC emissions.
- 2) Each steam generator has add-on controls (FGR and SO₂ scrubber) for NO_x emissions and SO_x emissions, respectively; therefore, these are potentially subject to CAM requirements for NO_x and SO_x.
- 3) a. NO_x with FGR

Both permit units have a NO_x emission factor of 0.018 lb/MMBtu and have a heat rating of 62.5 MMBtu/hr. As seen in the above calculations for permit unit '-5, the pre-control PE for each unit is less than the major source threshold of 20,000 lb-NO_x/yr and therefore these units are not subject to CAM requirements.

b. SO_x with SO₂ Scrubber

S-1135-12

Based on condition #7 of PTO S-1135-12-40, emissions factor for SO_x can be calculated as follows:

$$\frac{9 \text{ parts}}{10^6 \text{ parts}} \times \frac{8,578 \text{ dscf}}{\text{MMBtu}} \times \frac{64 \text{ lb SO}_2}{\text{lb . mole}} \times \frac{20.9}{20.9 - 3} \times \frac{\text{lb . mole}}{379.5 \text{ dscf}} = \frac{0.015 \text{ lb SO}_2}{\text{MMBtu}}$$

Thus, the post-control PE for SO_x for this unit can be calculated as follows:

$$\begin{aligned} \text{Post-control PE} &= \text{Emission Factor (lb-SO}_x\text{/MMBtu)} \\ &\quad \times \text{Operation (hours/year)} \times \text{Heat Rating (MMBtu/hr)} \\ &= 0.015 \text{ lb-SO}_x\text{/MMBtu} \times 8,760 \text{ hours/yr} \times 62.5 \text{ MMBtu/hr} \\ &= 8,213 \text{ lb-SO}_x\text{/yr} \end{aligned}$$

Pursuant to EPA document (<https://www3.epa.gov/ttnca1c1/dir1/fsprytwr.pdf>), SO₂ removal efficiencies of SO₂ scrubber vary from 80 to greater than 99 percent, depending upon the type of reagent used and the spray tower design. To be conservative, it will be assumed that the SO₂ scrubber associated with this permit unit has an 80% control efficiency. Thus,

$$\begin{aligned}\text{Pre-control PE} &= \text{Post-control PE (lb-SOx/yr)} \div (1 - \text{CE}) \\ &= 8,213 \text{ lb-SOx/yr} \div (1 - 0.8) \\ &= 41,065 \text{ lb-SOx/yr}\end{aligned}$$

Since the pre-control PE for this unit is less than the major source threshold of 140,000 lb-SOx/yr, this unit is not subject to CAM for SOx emissions.

S-1135-266

Pursuant to condition #6 of PTO S-1135-266-18⁶, total annual emissions from S-1135-26, S-1135-266 and S-1547-1089 is limited to 20,951 lb/year for SOx emissions. Also, pursuant to condition #8 of PTO S-1135-266-18, emissions from this unit is limited to 2.4 lb/day for SOx emissions, which results in 876 lb/year. Therefore, the post-control PE for SOx for this unit can be calculated as follows:

$$\begin{aligned}\text{Post-control PE} &= \text{Daily Emissions Limit (lb-SOx/day)} \\ &\quad \times \text{Operation (day/year)} \\ &= 2.4 \text{ lb-SOx/day} \times 365 \text{ day/yr} \\ &= 876 \text{ lb-SOx/yr}\end{aligned}$$

As seen above, to be conservative, it will be assumed that the SO2 scrubber associated with this permit unit has an 80% control efficiency. Thus,

$$\begin{aligned}\text{Pre-control PE} &= \text{Post-control PE (lb-SOx/yr)} \div (1 - \text{CE}) \\ &= 876 \text{ lb-SOx/yr} \div (1 - 0.8) \\ &= 4,380 \text{ lb-SOx/yr}\end{aligned}$$

Since the pre-control PE for the unit is less than the major source threshold of 140,000 lb-SOx/yr, this unit is not subject to CAM for SOx emissions.

d. Steam Generator with SO₂ Scrubber

S-1135-26

- 1) The unit has an emission limit for NOx, SOx, PM10, CO, and VOC emissions.
- 2) The unit has an add-on control (scrubber) for SOx emissions; therefore, it's potentially subject to CAM requirements.

⁶ This condition includes permit units '-27 and '-28, which were cancelled in 2019 per applicant request. Therefore, pursuant to District Rule 2520, condition #12 of the draft PTO S-1135-26-47 and condition #6 of the draft PTO S-1135-26-22 has been revised administratively.

- 3) Based on condition #7 of PTO S-1135-26-46, emissions factor for SOx can be calculated as follows:

$$\frac{9 \text{ parts}}{10^6 \text{ parts}} \times \frac{8,578 \text{ dscf}}{\text{MMBtu}} \times \frac{64 \text{ lb SO}_2}{\text{lb . mole}} \times \frac{20.9}{20.9 - 3} \times \frac{\text{lb . mole}}{379.5 \text{ dscf}} = \frac{0.015 \text{ lb SO}_2}{\text{MMBtu}}$$

Thus, the post-control PE for SOx for this unit can be calculated as follows:

$$\begin{aligned} \text{Post-control PE} &= \text{Emission Factor (lb-SOx/MMBtu)} \\ &\quad \times \text{Operation (hours/year)} \times \text{Heat Rating (MMBtu/hr)} \\ &= 0.015 \text{ lb-SOx/MMBtu} \times 8,760 \text{ hours/yr} \times 62.5 \text{ MMBtu/hr} \\ &= 8,213 \text{ lb-SOx/yr} \end{aligned}$$

Pursuant to EPA document (<https://www3.epa.gov/ttnca1/dir1/fsprytwr.pdf>), SO2 removal efficiencies of SO2 scrubber vary from 80 to greater than 99 percent, depending upon the type of reagent used and the spray tower design. To be conservative, it will be assumed that the SO2 scrubber associated with this permit unit has an 80% control efficiency. Thus,

$$\begin{aligned} \text{Pre-control PE} &= \text{Post-control PE (lb-SOx/yr)} \div (1 - \text{CE}) \\ &= 8,213 \text{ lb-SOx/yr} \div (1 - 0.8) \\ &= 41,065 \text{ lb-SOx/yr} \end{aligned}$$

Since the pre-control PE for this unit is less than the major source threshold of 140,000 lb-SOx/yr, this unit is not subject to CAM for SOx emissions.

However, this part has been referenced in the permit since the issuance of the last renewed Title V permit unintentionally. Therefore, condition #6 of the draft PTO S-1135-26-47 will not reference this part any longer.

e. Turbine with SCR

S-1135-224, '-225, and '-226

- 1) Each unit have an emissions limit for NOx, SOx, VOC, CO, and PM₁₀ emissions.
- 2) Each unit has an add-on control (SCR) for NOx emissions. Therefore, each unit is potentially subject to CAM requirements.

- 3) The post-control PE for NO_x for the unit can be calculated as follows:

$$\begin{aligned}\text{Post-control PE} &= \text{Emission Factor (lb-NO}_x\text{/MMBtu)} \\ &\quad \times \text{Maximum Heat Input}^3 \text{ (MMBtu/hr)} \times \text{Operation (hr/yr)} \\ &= 0.018 \text{ lb-NO}_x\text{/MMBtu} \times 960 \text{ MMBtu/hr} \times 8,760 \text{ hr/yr} \\ &= 151,373 \text{ lb-NO}_x\text{/yr}\end{aligned}$$

Since the post-project PE exceeds the major source threshold, these unit are subject to CAM requirements. However, the turbines are equipped with continuous emissions monitoring systems (CEMS) and therefore exempt from CAM requirements.

f. TEOR Operation served by Vapor Control

S-1135-127, '-128, '-129, and '-293

- 1) Section 64.1 defines a control device as equipment, other than inherent process equipment, that is used to destroy or remove air pollutant(s) prior to discharge to the atmosphere. Based on District practice, the vapor control system is “inherent process equipment”, i.e. the vapor control system is used to increase the safe and proper functioning of the tank battery. Such a vapor control system serves to reduce emission of H₂S (a toxic substance) from the tank(s) and to reduce corrosion in the tank(s) vapor space by eliminating the intrusion of ambient air. Inherent process equipment is explicitly excluded from the definition of control device as defined in 40 CFR 64. Therefore, this subpart is not applicable to these units.

Q. 40 CFR Part 82, Subpart B – Servicing of Motor Vehicle Air Conditioners

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

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

The amendments to this subpart do not result in a modification to the current permit requirement included as condition 28 of draft permit requirements of draft facility-wide permit N-3696-0-3. Therefore, the modifications to this subpart are not addressed any further in this evaluation.

R. 40 CFR Part 82, Subpart F – Recycling and Emissions Reduction

The purpose of this subpart is to reduce emissions of class I and class II refrigerants and their non-exempt substitutes to the lowest achievable level by maximizing the recapture and recycling of such refrigerants during the maintenance, service, repair, and disposal of appliances and restricting the sale of refrigerants consisting in whole or in part of a class I or class II ozone-depleting substance or their non-exempt substitutes in accordance with Title VI of the Clean Air Act.

This subpart applies to any person maintaining, servicing, or repairing appliances containing class I, class II or non-exempt substitute refrigerants. This subpart also applies to persons disposing of such appliances (including small appliances and motor vehicle air conditioners), refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturers of recovery and/or recycling equipment, approved recovery and/or recycling equipment testing organizations, and persons buying, selling, or offering to sell class I, class II, or non-exempt substitute refrigerants.

The amendments to this subpart do not result in a modification to the current permit requirement included as condition 27 of draft permit requirements of draft facility-wide permit N-3696-0-3. Therefore, the modifications to this subpart are not addressed any further in this evaluation.

IX. PERMIT SHIELD

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

A. Requirements Addressed by Model General Permit Templates

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

By submitting Model General Permit Template SJV-UM-0-3 qualification form, the applicant has requested that a permit shield be granted for all the applicable requirements identified by the template. Therefore, the permit shields as granted in Model General Permit Template are included as conditions 39 and 40 of the facility-wide requirements (S-1135-0-5).

In addition, as discussed in Section V above, conditions #8 and 23 listed on S-1135-05 were modified and were approved by EPA under District project S-1032149. Therefore, these conditions are included in the permit shields.

B. Requirements not Addressed by Model General Permit Templates

The applicant has not requested any permit shields other than as discussed above.

C. Obsolete Permit Shields From Existing Permit Requirements

There were no obsolete permit shields listed in the existing permit requirements.

X. CALIFORNIA ENVIRONMENTAL QUALITY ACT

The purpose of the Title V permit renewal is to update the permit to ensure that any changes to regulations since the issuance of the initial Title V permit or most recent renewal of the Title V permit are incorporated as permit requirements.

Per the California Environmental Quality Act (CEQA) Statute §21080.24, and CEQA Guidelines §15281, the issuance, modification, amendment, or renewal of any permit by an air pollution control district or air quality management district pursuant to Title V is exempt from CEQA, unless the issuance, modification, amendment, or renewal authorizes a physical or operational change to a source or facility. There will be no physical or operational change to the source or facility nor will the Title V permit renewal authorize a physical or operational change to the source or facility. Therefore, this project, a Title V permit renewal, is subject to a ministerial action that is exempt from CEQA.

XI. PERMIT CONDITIONS

See Attachment A - Draft Renewed Title V Operating Permit.

ATTACHMENTS

- A. Draft Renewed Title V Operating Permit
- B. Previous Title V Operating Permit
- C. Detailed Summary List of Facility Permits

ATTACHMENT A

Draft Renewed Title V Operating Permit

San Joaquin Valley Air Pollution Control District

FACILITY: S-1135-0-5

EXPIRATION DATE: 05/31/2021

FACILITY-WIDE REQUIREMENTS

1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1] Federally Enforceable Through Title V Permit
2. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0] Federally Enforceable Through Title V Permit
3. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1] Federally Enforceable Through Title V Permit
6. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. The operator shall maintain records of required monitoring, where applicable, that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit

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: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

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11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all e)] Federally Enforceable Through Title V Permit

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23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating not exempt as allowed by Sections 4.1 and 4.2 of Rule 4601 with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
27. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
29. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
30. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
31. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
32. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
33. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
34. Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

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36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
42. Facilities S-1135 and S-1547 constitute one stationary source. [District Rule 2201] Federally Enforceable Through Title V Permit
43. On August 31, 2002, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin August 31 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
44. STEAM GENERATOR FUEL MONITORING CONDITION: For units equipped with post-combustion SO₂ control equipment (e.g. SO₂ scrubber), annual source testing shall be performed to measure SO₂ concentration in the exhaust or SO₂ control efficiency using EPA Methods 6, 6C, 8 or ARB Method 100. SO_x control efficiency determination shall follow procedure in Section 6.2.8 of Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
45. STEAM GENERATOR FUEL MONITORING CONDITION: For units not equipped with post-combustion SO₂ control equipment (e.g. SO₂ scrubber), each fuel source shall be tested for sulfur annually using ASTM D 1072, D 3031, D 4084, or D 3246, D 6228, D 5504, EPA Method 11 or 15, or grab sample analysis by double GC for H₂S and mercaptans. [District Rule 4320] Federally Enforceable Through Title V Permit
46. STEAM GENERATOR GENERAL CONDITION: Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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47. STEAM GENERATOR GENERAL CONDITION: Emission rates during startup, shutdown and refractory curing shall not exceed any of the following: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO₂; sulfur - 200 pounds of SO₂ per hour, or 2,000 ppmv as SO₂, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO₂ - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, 4405, and 4406] Federally Enforceable Through Title V Permit
48. STEAM GENERATOR PERIODIC MONITORING CONDITION: 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. If the unit is equipped with flue gas recirculation (FGR), measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
49. STEAM GENERATOR PERIODIC MONITORING CONDITIONS: If the NO_x and/or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
50. STEAM GENERATOR PERIODIC MONITORING CONDITION: All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
51. STEAM GENERATOR PERIODIC MONITORING CONDITION: The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent by volume 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
52. STEAM GENERATOR PERIODIC MONITORING CONDITION: All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
53. STEAM GENERATOR SOURCE TESTING CONDITION: The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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54. STEAM GENERATOR SOURCE TESTING CONDITION: 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 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO_x (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H₂S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
55. STEAM GENERATOR SOURCE TESTING CONDITION: For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
56. STEAM GENERATOR SOURCE TESTING CONDITION: The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
57. STEAM GENERATOR SOURCE TESTING CONDITION: Source testing to measure natural gas-combustion NO_x and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
58. STEAM GENERATOR GENERAL CONDITION: If the unit is equipped with flue gas recirculation (FGR), whenever the unit is switched to operate with the FGR system in the closed position, compliance source testing for NO_x and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 36 months. [District Rule 1070] Federally Enforceable Through Title V Permit
59. TEOR SYSTEM CONDITION: The crude oil production from wells associated with this permit unit shall not lie within 1,000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
60. TEOR SYSTEM CONDITION: The fugitive emissions component inspection and reinspection requirements of Section 5.4.1 through Section 5.4.6 of this rule shall not apply to components exclusively handling 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. [District Rule 4401] Federally Enforceable Through Title V Permit
61. TEOR SYSTEM CONDITION: During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
62. TEOR SYSTEM CONDITION: The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. [District Rule 4401, 5.1 and 5.2] Federally Enforceable Through Title V Permit
63. TEOR SYSTEM CONDITION: An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emission to atmosphere, or 2) the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system. [District Rule 4401, 5.1] Federally Enforceable Through Title V Permit

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64. TEOR SYSTEM CONDITION: There shall be no open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.1] Federally Enforceable Through Title V Permit
65. TEOR SYSTEM CONDITION: There shall be no components with a major liquid leak as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.2.2.2] Federally Enforceable Through Title V Permit
66. TEOR SYSTEM CONDITION: There shall be no components with a gas leak of greater than 50,000 ppmv. [District Rule 4401, 5.2.2.3] Federally Enforceable Through Title V Permit
67. TEOR SYSTEM CONDITION: An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
68. TEOR SYSTEM CONDITION: No leaking components (as defined in Section 5.2.2 of Rule 4401) may be used unless they have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
69. TEOR SYSTEM CONDITION: Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit
70. TEOR SYSTEM CONDITION: An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of this Rule. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit
71. TEOR SYSTEM CONDITION: An operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: 1) An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. 2) Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of this Rule. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit
72. TEOR SYSTEM CONDITION: The operator shall also perform the following inspections: 1) An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. 2) An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service, and 3) Except for PRDs subject to the requirements of Section 5.4.4.1 of this Rule, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit
73. TEOR SYSTEM CONDITION: Components located in unsafe areas shall be inspected and repaired at the next process unit turnaround and inaccessible components shall be inspected at least annually. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

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74. TEOR SYSTEM CONDITION: Upon detection of a leak, an operator shall affix a readily visible weatherproof tag to that leaking component that includes the following information: 1) The date and time of leak detection; 2) The date and time of the leak measurement; 3) For a gaseous leak, the leak concentration in ppmv; 4) For a liquid leak, whether it is a major or minor liquid leak; and 5) Whether the component is an essential component, and unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit
75. TEOR SYSTEM CONDITION: The tag shall remain affixed to the leaky component until all the following requirements are met: 1) The component is repaired or replaced, 2) The component is re-inspected as set forth in Section 6.3, and 3) The component is found to be in compliance with Rule 4401. [District Rule 4401, 5.5.2] Federally Enforceable Through Title V Permit
76. TEOR SYSTEM CONDITION: An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit
77. TEOR SYSTEM CONDITION: Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the following three requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: 1) Repair or replace the leaking component, 2) Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or 3) Remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit
78. TEOR SYSTEM CONDITION: The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit
79. TEOR SYSTEM CONDITION: The time of the initial leak detection shall be the start of the repair period specified in Table 3. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit
80. TEOR SYSTEM CONDITION: If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of 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
81. TEOR SYSTEM CONDITION: The operator of any steam-enhanced crude oil production well shall maintain records of 1) the date and well identification where steam injection or well stimulation occurs; and 2) a listing of all steam enhanced wells connected to this system (updated annually within 60 days of permit anniversary). [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
82. TEOR SYSTEM CONDITION: An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit
83. TEOR SYSTEM CONDITION: Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit
84. TEOR SYSTEM CONDITION: The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.6 & 6.5] Federally Enforceable Through Title V Permit

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85. TEOR SYSTEM CONDITION: An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. 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, and internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit
86. TEOR SYSTEM CONDITION: The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
87. TEOR SYSTEM CONDITION: VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
88. TEOR SYSTEM CONDITION: Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit
89. TEOR SYSTEM CONDITION: The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit
90. TEOR SYSTEM CONDITION: The operator shall maintain an inspection log in which the operator records at least all of the following for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type, 2) The location, type and name or description of each leaking component and description of any unit where the leaking component is found, 3) The date of leak detection and the method of leak detection, 4) For gaseous leaks, the leak concentration in ppmv and, for liquids leaks, whether the leak is major or minor, 5) The date of repair, replacement or removal from operation of leaking components, 6) The identity and location of essential components and critical components as defined in this Rule, found leaking, that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than 1 year after detection, whichever comes earlier, 8) The date or re-inspection and the leak concentration in ppmv after the component is repaired or replaced, 9) The inspectors name, business mailing address, and business telephone number, and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit
91. TEOR SYSTEM CONDITION: By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] 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.

92. TEOR SYSTEM CONDITION: Each hatch shall be closed at all times except during attended repair, replacement, or maintenance operations, providing such activities are done as expeditiously as possible with minimal spillage or material and VOC emissions into the atmosphere. [District Rule 4401, 5.3.2] 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-1135-3-27

EXPIRATION DATE: 05/31/2021

SECTION: 24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

HEATER TREATER #1 SERVED BY VAPOR RECOVERY SYSTEM LISTED ON S-1135-70, AND PERMIT EXEMPT BURNER (NATURAL GAS-FIRED, 5.0 MMBTU/HR OR LESS) (METSON LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Vessel shall only vent to vapor recovery system, permit S-1135-70, except during District approved cleaning and during maintenance procedures. [District Rule 2520] Federally Enforceable Through Title V Permit
3. Permittee shall keep accurate records of TVP of liquids stored in each tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
4. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 1.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When disconnected from the vapor control system for maintenance/repairs/upset conditions, vessel 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 2201] Federally Enforceable Through Title V Permit
6. Permittee shall keep accurate records of TVP of liquids stored in the vessel. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
7. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Vessel shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Heater treater and appurtenances shall be maintained leak-free (as defined in Rule 4623) except during periods of unit maintenance or cleaning, vapor control system maintenance, and power curtailment. [District Rule 2520] 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. This unit is subject to the Metson Dehy Inspection Conditions on Permit S-1135-70. Deviations from a standard condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] 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-1135-5-41

EXPIRATION DATE: 05/31/2021

SECTION: SW22 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #41 DIS #11867-75 WITH A COEN ULN LOW-NOX BURNER WITH OPTIONAL-USE FGR (BUENA FE LEASE)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
8. This unit is located west of interstate 5 in Kern County. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
9. Maximum annual heat input of the unit shall not exceed 438,000 MMBtu per rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. Use of an alternate system consisting of calibrated orifice plates, transmitters, and a programmable logic controller (PLC) may be used to meet this requirement. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Records of monthly and rolling 12-month average heat input of the unit shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Emission rates shall not exceed any of the following: PM10: 0.014 lb/MMBtu or SOx (as SO2): 0.001 lb/MMBtu. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
13. Emission rates, except during startup and shutdown and refractory curing, shall not exceed any of the following: NOx (as NO2): 15 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 50 ppmv @ 3% O2. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
14. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
15. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-6-38

EXPIRATION DATE: 05/31/2021

SECTION: 35 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR #43 WITH A COEN QLN-ULN LOW NOX BURNER AND FLUE GAS RECIRCULATION (KENDON LEASE)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
8. This unit is located west of interstate 5 in Kern County. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
9. Maximum annual heat input of the unit shall not exceed 438,000 MMBtu per rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas/vapor recovery gas combusted in the unit shall be installed, utilized and maintained. Use of an alternate system consisting of calibrated orifice plates, transmitters, and a programmable logic controller (PLC) may be used to meet this requirement. [District Rule 2201 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
11. Records of monthly and rolling 12-month average heat input of the unit shall be maintained. [District Rule 2201 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.074 lb/MMBtu, SOx (as SO2): 0.005 lb/MMBtu, VOC: 0.007 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, and 4306] Federally Enforceable Through Title V Permit
13. Emission rates shall not exceed any of the following: PM10: 111.0 lb/day, SOx (as SO2): 7.5 lb/day, VOC: 10.5 lb/day, NOx (as NO2): 54.0 lb/day or 7,884 lb per rolling 12-month period, or CO: 49.5 lb/day or 13,140 lb per rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
15. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
16. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit
17. The permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [40 CFR 60.48c(g)] 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-1135-12-45

EXPIRATION DATE: 05/31/2021

SECTION: 35 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #45 WITH A COEN ULN LOW-NOX BURNER WITH OPTIONAL-USE FGR AND OPTIONAL SO2 SCRUBBER (KENDON LEASE)

PERMIT UNIT REQUIREMENTS

1. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit
2. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
3. Scrubber shall be located on site. Duct work to steam generators may be blinded off or removed. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When steam generator exhaust is routed through the scrubber, permittee shall monitor and record scrubber liquor recirculation rate and pH at least once per day. The scrubber pH shall be maintained above 6.15. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When scrubber is in operation, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Whenever non-PUC/FERC gas is burned in this unit, the scrubber shall operate and shall reduce SO2 emissions by 95% by weight, or shall limit exhaust SO2 to less than or equal to 9 ppmv corrected to 3.0% oxygen. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
8. PUC-quality gas shall be combusted in this unit when scrubber is not in operation. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
9. Maximum annual heat input of the unit shall not exceed 438,000 MMBtu per rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas/vapor recovery gas combusted in the unit shall be installed, utilized and maintained. Use of an alternate system consisting of calibrated orifice plates, transmitters, and a programmable logic controller (PLC) may be used to meet this requirement. [District Rule 2201 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
11. Records of monthly and rolling 12-month average heat input of the unit shall be maintained. [District Rule 2201 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Emission rate shall not exceed 0.080 lb-PM10/MMBtu. [District Rules 2201, 2520, 4201, and 4301] Federally Enforceable Through Title V Permit
13. Emission rates, except during startup and shutdown and refractory curing, shall not exceed any of the following: NOx (as NO2): 15 ppmv @ 3% O2, VOC: 0.007 lb/MMBtu, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 2520, 4301, 4305, and 4306] Federally Enforceable Through Title V Permit
14. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
15. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
16. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit
17. The permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [40 CFR 60.48c(g)] 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-1135-17-20

EXPIRATION DATE: 05/31/2021

SECTION: 24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

STEAM-ENHANCED CRUDE OIL PRODUCTION WELL OPERATION, SERVING 175 STEAM ENHANCED WELLS, INCLUDING PIPING TO INCINERATING STEAM GENERATORS, FOR REINJECTION OF NONCONDENSIBLE VAPORS, OR FOR BALANCING OF WELL VENTS.

PERMIT UNIT REQUIREMENTS

1. TEOR gases shall be re-injected to the formation, incinerated in steam generators #'s S-1135-26, -27,-28,-266 and S-1547-1089, contained within balanced casing vent collection system, or well casing vents shall be closed and produced fluids handled only in controlled production equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401(June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
3. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
4. Operation shall include gas/liquid separators, condensate knockouts, and compressor knockouts. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Operation shall include, water-cooled heat exchanger, air-cooled heat exchangers, and gas compressors. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Operation shall include 3 pressure type condensate storage tanks (rated @ 50 psig 650 deg F), 3 - 25 bbl open top emergency drain tanks, and non condensable piping to approved incineration devices. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Operation shall include vapor compressor bypass piping, and casing vapor collection piping to 175 wells. [District Rule 2201] Federally Enforceable Through Title V Permit
8. TEOR gas injection system shall include piping, reinjection knockout vessels, interstage coolers and gas/liquid separators, reinjection gas compressors, and liquid transfer pumps. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operation shall include H2S chemical contractors/ scrubbing pressure vessels. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Casing vent vapor collection piping (includes M1, M2, and M3) shall be interconnected such that flow can be directed to all parts of system. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Water/VOCs condensate from all liquid knockout drums shall be pumped to production manifold. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-17-20 : Jan 25 2022 2:58PM -- HONGM

12. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system or injected into formation using DOGGR-approved disposal wells. Permittee shall cease injecting vapors & notify the District if DOG injection approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District Rule 2080] Federally Enforceable Through Title V Permit
13. Block valve upstream of free condensate knockout shall activate and shut in casing vapor at 40 psig system pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Vapors extracted from Metson tank battery, tanks S-1135-70 shall be piped to casing vent collecting system. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-18-19

EXPIRATION DATE: 05/31/2021

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

STEAM-ENHANCED CRUDE OIL PRODUCTION WELL OPERATION SERVING UP TO 140 STEAM ENHANCED WELLS, INCLUDING PIPING FOR BALANCING OF WELL VENTS OR CLOSED CASING VENTS FOR BALANCING OF WELL VENTS OR CLOSED CASING VENTS (WILBERT LEASE)

PERMIT UNIT REQUIREMENTS

1. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401(June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
2. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
3. TEOR gas VOC content shall not exceed 4.1% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive volatile organic compound (VOC) emissions from this steam-enhanced crude oil production operation shall not exceed 4.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain with the permit accurate fugitive component counts of components in gas service and resulting emissions calculated using the emission factors in the "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" Table IV-2c, dated 2/99. (CAPCOA document). [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-18-19 : Jan 25 2022 2:58PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-20-33

EXPIRATION DATE: 05/31/2021

SECTION: NE35 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

STEAM ENHANCED CRUDE OIL PRODUCTION WELL OPERATION SERVING 405 STEAM ENHANCED WELLS INCLUDING HEAT EXCHANGER(S), GAS/LIQUID SEPARATOR(S), VAPOR COMPRESSOR(S) AND ASSOCIATED PIPING (KENDON/NATIONAL)

PERMIT UNIT REQUIREMENTS

1. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Steam production wells may be operated as follows: 1) casing vents opened to a casing vent collection system; 2) casing vents shut-in; and/or 3) casing vents operating as a "balanced" system by tying the casing vents together and letting the pressure balance between the well-head casing vents. Vapors from casing vent collection system shall be sent to the approved disposal device(s) listed on this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
3. All produced fluids from any well served by vapor collection system which has had casing gas flow restricted or casing vent closed shall be handled only in closed production equipment served by a 99% effective vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Operation includes: heat exchanger(s), gas/liquid separator(s), gas compressor(s), H2S chemical contactor/scrubber vessel(s) and vapor piping to vapor control system listed on S-1547-460. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Uncondensable gases shall be controlled by one or more of the following options: incineration in Kendon steam generators S-1135-12 and S-1135-24 or National steam generators S-1547-234, S-1547-238 and S-1547-248, and/or injected into vapor disposal well(s). [District Rule 2201] Federally Enforceable Through Title V Permit
6. Condensate storage tanks and oil-water separator shall vent to vapor control system or be equipped with equivalent vapor control provisions approved by District. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Water/VOC condensate from all gas/liquid separators shall be pumped to production manifold. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Injection of collected vapors shall only be conducted under a valid Division of Oil, & Gas, & Geothermal Resources (DOGGR) approval for injection of gases. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Total fugitive emission of volatile organic compounds (VOC) from entire operation shall not exceed 114.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall maintain with the permit accurate fugitive component counts of components in gas service and resulting emissions calculated using the emission factors in the "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" Table IV-2c, dated 2/99. (CAPCOA document). [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-20-33 : Jan 25 2022 2:58PM -- HONGM

11. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-21-14

EXPIRATION DATE: 05/31/2021

SECTION: 22 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

STEAM-ENHANCED CRUDE OIL PRODUCTION OPERATION SERVING UP TO 153 STEAM-ENHANCED WELLS, INCLUDING PIPING FOR BALANCING OF WELL VENTS OR CLOSED CASING VENTS (BUENA FE FEE LEASE)

PERMIT UNIT REQUIREMENTS

1. Maximum VOC content of TEOR vapors shall not exceed 32.3% by weight of Total Organic Compounds (TOC). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed five (5). [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive volatile organic compound (VOC) emissions from this steam-enhanced crude oil production operation shall not exceed 14.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts of components in gas service and resulting emissions calculated using the emission factors in the "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" Table IV-2c, dated 2/99. (CAPCOA document). [District Rule 2201] Federally Enforceable Through Title V Permit
5. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
6. The requirements of District Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit because it is not an in situ combustion well vent. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
7. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-21-14 : Jan 25 2022 2:58PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-22-13

EXPIRATION DATE: 05/31/2021

SECTION: 26 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

STEAM-ENHANCED CRUDE OIL PRODUCTION WELL OPERATION SERVING UP TO 90 STEAM ENHANCED WELLS, INCLUDING PIPING FOR BALANCING OF WELL VENTS OR CLOSED CASING VENTS (MOCAL LEASE)

PERMIT UNIT REQUIREMENTS

1. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
3. Fugitive volatile organic compound (VOC) emissions from this steam-enhanced crude oil production operation shall not exceed 61.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts of components in gas service and resulting emissions calculated using the emission factors in the "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" Table IV-2c, dated 2/99. (CAPCOA document). [District Rule 2201] Federally Enforceable Through Title V Permit
5. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-22-13 : Jan 25 2022 2:58PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-26-47

EXPIRATION DATE: 05/31/2021

SECTION: 24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #32, DIS# 12051 71, WITH A COEN ULN 3.2 LOW-NOX BURNER AND VENTED TO AN OPTIONAL SO2 SCRUBBER SHARED WITH STEAM GENERATORS LISTED ON S-1135-27, '-28 AND '-266 (METSON LEASE)

PERMIT UNIT REQUIREMENTS

1. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
2. The minimum scrubber recirculation rate required to maintain compliance with the SO2 limit shall be 790 gpm. Compliance with the minimum recirculation rate requirement shall be determined by averaging the recirculation rate readings (calculated from hourly averages) during operation during the calendar day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. When steam generator exhaust is routed through scrubber, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When scrubber is bypassed, fuel gas sulfur content shall not exceed 5 grains of total sulfur per 100 dscf of fuel gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
5. Whenever non-PUC/FERC gas is burned in this unit, the scrubber shall operate and shall reduce SO2 emissions by 95% by weight, or shall limit exhaust SO2 to less than or equal to 9 ppmv corrected to 3.0% oxygen. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
6. When steam generator exhaust is routed through the scrubber, permittee shall monitor and record scrubber liquor recirculation rate and pH at least once per day. The scrubber pH shall be maintained above 6.15. [District Rule 4320] Federally Enforceable Through Title V Permit
7. Source testing to demonstrate compliance with SOx emission limits (SOx emission concentration or control efficiency) in this permit shall be conducted annually. Source testing may be deferred if scrubber is bypassed as authorized by this permit. Whenever the unit is switched to scrubbed operation, compliance source testing for SOX shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. Source testing of scrubber exhaust during operation of any one of the steam generators S-1135-26 or S-1547-1089 shall satisfy the testing requirement for this unit. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
8. Source testing to demonstrate compliance with the PM10 emission limit (lb/MMBtu) included in this permit shall be conducted concurrently with the initial compliance test for SOx and every three years thereafter. Source testing of scrubber exhaust during operation of any one of the steam generators S-1135-26 or S-1547-1089 when firing the maximum available quantity of waste gas shall satisfy the PM10 testing requirement for this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. Maximum annual heat input of the unit shall not exceed 438,000 MMBtu per rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas/vapor recovery gas combusted in the unit shall be installed, utilized and maintained. Use of an alternate system consisting of calibrated orifice plates, transmitters, and a programmable logic controller (PLC) may be used to meet this requirement. [District Rule 2201 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
11. Records of monthly and rolling 12-month average heat input of the unit shall be maintained. [District Rule 2201 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
12. The total annual emissions from S-1135-26, S-1135-266 and S-1547-1089 shall not exceed SO_x: 20,951 lb per rolling 12-month period or PM₁₀: 32,222 lb per rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Emission rates, except during startup and shutdown and refractory curing, shall not exceed any of the following: PM₁₀: 0.0266 lb/MMBtu, SO_x (as SO₂): 9 ppmv @ 3% O₂, VOC: 0.007 lb/MMBtu, NO_x (as NO₂): 15 ppmv @ 3% O₂, or CO: 50 ppmv @ 3% O₂. [District Rules 2201, 2520, 4201, 4301, 4305, and 4306] Federally Enforceable Through Title V Permit
14. Emissions rates shall not exceed any of the following: PM₁₀: 39.9 lb/day, SO_x (as SO₂): 23.3 lb/day, VOC: 10.5 lb/day, NO_x (as NO₂): 27.0 lb/day or 7,884 lb per rolling 12-month period, or CO: 57.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
16. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit
17. The permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [40 CFR 60.48c(g)] 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-1135-29-33

EXPIRATION DATE: 05/31/2021

SECTION: 24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

HEATER TREATER (#2) SERVED BY VAPOR RECOVERY SYSTEM LISTED ON S-1135-70 AND PERMIT EXEMPT BURNER (NATURAL GAS-FIRED, 5.0 MMBTU/HR OR LESS) (METSON LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 1.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. When disconnected from the vapor control system for maintenance/repairs/upset conditions, vessel 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 2201] Federally Enforceable Through Title V Permit
4. Permittee shall keep accurate records of TVP of liquids stored in the vessel. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
5. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Vessel shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
7. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Heater treater and appurtenances shall be maintained leak-free (as defined in Rule 4623) except during periods of unit maintenance or cleaning, vapor control system maintenance, and power curtailment. [District Rule 2520] Federally Enforceable Through Title V Permit
9. This unit is subject to the Metson Dehy Inspection Conditions on Permit S-1135-70. Deviations from a standard condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] 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-1135-70-20

EXPIRATION DATE: 05/31/2021

SECTION: SW24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

43,470 GALLON FIXED ROOF REJECT TANK T-110, WITH SHARED VAPOR RECOVERY SYSTEM - METSON LEASE TANK BATTERY

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Vapor control system shall include two fin fan heat exchangers, two separators, two compressors, and two liquid transfer pumps, shared between tanks S-1135-70, '-71, '-72, '-322, '-326, and '-327, and heater treaters S-1135-3 and '-29. Collected vapors shall be compressed to existing TEOR system. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions rate calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 22.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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 2201] Federally Enforceable Through Title V Permit
5. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. METSON DEHY VAPOR RECOVERY CONDITION: The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
11. METSON DEHY VAPOR RECOVERY CONDITION: This tank shall only vent to a vapor recovery system. The vapor recovery system shall be an APCO-approved system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be maintained in a leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4 of District Rule 4623 (amended May 19, 2005). [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
12. METSON DEHY VAPOR RECOVERY CONDITION: Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
13. METSON DEHY INSPECTION CONDITION: Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rules 2520 and 4623] Federally Enforceable Through Title V Permit
14. METSON DEHY INSPECTION CONDITION: Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623] Federally Enforceable Through Title V Permit
15. METSON DEHY INSPECTION CONDITION: Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623] Federally Enforceable Through Title V Permit
16. METSON DEHY INSPECTION CONDITION: Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2520 and 4623] Federally Enforceable Through Title V Permit
17. METSON DEHY INSPECTION CONDITION: Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of District Rule 4623. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of District Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
18. METSON DEHY INSPECTION CONDITION: If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2520 and 4623] Federally Enforceable Through Title V Permit
19. METSON DEHY INSPECTION CONDITION: Any component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if covered under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
20. METSON DEHY INSPECTION CONDITION: Operator shall maintain an inspection log containing the following: 1) Date of all inspections; 2) Type and identification of leaking components; 3) Date of leak detection and method of detection; 4) Method used to minimize leak; and 5) Date and emission level of recheck after leak is repaired. [District Rule 2520] 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.

21. METSON DEHY VAPOR RECOVERY CONDITION: The operator shall ensure that the vapor recovery system is functional and is operating as designed. [District Rule 2520] Federally Enforceable Through Title V Permit
22. METSON DEHY TANK CLEANING CONDITION: This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rules 2020 and 2080] Federally Enforceable Through Title V Permit
23. METSON DEHY TANK CLEANING CONDITION: There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
24. METSON DEHY TANK CLEANING CONDITION: Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor recovery system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor recovery system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
25. METSON DEHY TANK CLEANING CONDITION: Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
26. METSON DEHY TANK CLEANING CONDITION: Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2201] Federally Enforceable Through Title V Permit
27. METSON DEHY VAPOR RECOVERY CONDITION: Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2520] Federally Enforceable Through Title V Permit
28. METSON DEHY TESTING CONDITION: Permittee shall conduct true vapor pressure (TVP) and API gravity 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
29. METSON DEHY TESTING CONDITION: 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. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
30. METSON DEHY TESTING CONDITION: 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
31. METSON DEHY TESTING CONDITION: Permittee shall retain records of TVP and API gravity testing for District inspection upon request. 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 2080] 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-1135-71-12

EXPIRATION DATE: 05/31/2021

SECTION: SW24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

84,000 GALLON FIXED ROOF LACT TANK T-100 WITH VAPOR RECOVERY (LISTED ON S-1135-70) - METSON LEASE TANK BATTERY

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operation shall include vapor recovery system described on the requirements for permit unit S-1135-70. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 0.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
5. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
10. The Standard Metson Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-70 apply to the equipment operating under this permit. Deviations from a Standard Metson Condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-71-12 : Jan 25 2022 2:59PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-72-12

EXPIRATION DATE: 05/31/2021

SECTION: SW24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED ROOF STANDBY TANK T-120, WITH VAPOR RECOVERY SYSTEM (LISTED ON S-1135-70) - METSON LEASE TANK BATTERY

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operation shall include vapor recovery system described on the requirements for permit unit S-1135-70. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
5. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
10. The Standard Metson Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-70 apply to the equipment operating under this permit. Deviations from a Standard Metson Condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] 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-1135-124-19

EXPIRATION DATE: 05/31/2021

SECTION: NW15 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION SERVING 254 STEAM ENHANCED WELLS, AND TIED TO TEOR '293 INCLUDING PIPING TO BALANCED CGCS, RE-INJECTION COMPRESSORS OR INCINERATING STEAM GENERATORS (EXETER LEASE)

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control system VOC fugitive emission rate shall not exceed 50.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Permittee shall maintain with the permit accurate fugitive component counts for well vent vapor control system and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production, Screening Value Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401(June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
4. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
5. Operation shall include vapor control skids including: various size knockout vessels with liquid pumps, gas scrubbers, heat exchangers, vapor compressors, and piping to District approved disposal devices. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Piping to re-injection system shall include re-injection knock out vessels, interstage coolers & gas/liquid separators, injection gas compressors and liquid transfer pumps, as needed. [District Rule 2201] Federally Enforceable Through Title V Permit
7. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system S-1135-124 and '-293, injected into formation using DOGGR-approved disposal wells, or incinerated as fuel in steam generators. Permittee shall cease injecting vapors and notify the District if DOG injection approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District Rule 2080] Federally Enforceable Through Title V Permit
8. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-124-19 : Jan 25 2022 2:59PM - HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-125-18

EXPIRATION DATE: 05/31/2021

SECTION: SW14 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION SERVING 144 STEAM ENHANCED CRUDE OIL PRODUCTION WELL VENTS, TIED TO TEOR '293 AND TVR '173 (W&S FEE LEASE)

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control system VOC fugitive emission rate shall not exceed 38.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Permittee shall maintain with the permit accurate fugitive component counts for well vent vapor control system and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production, Screening Value Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
4. Operation shall include three vapor control skids with casing vent collection piping serving 144 steam drive wells. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Operation shall include vapor control equipment which consists of miscellaneous knockout vessels & liquid removal pumps, gas coolers, heat exchangers, vapor compressors, condensate collection tanks & piping to approved injection well(s). [District Rule 2201] Federally Enforceable Through Title V Permit
6. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system or injected into formation using DOGGR-approved disposal wells. Permittee shall cease injecting vapors and notify the District if DOGGR injection approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Piping to injection system shall include re-injection knockout vessels, interstage coolers & gas/liquid separators, injection gas compressors and liquid transfer pumps, as needed. [District Rule 2201] Federally Enforceable Through Title V Permit
8. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-127-21

EXPIRATION DATE: 05/31/2021

SECTION: NE27 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION INCLUDING ONE TRANSPORTABLE FIN FAN COOLER AND ASSOCIATED PIPING SERVING 383 STEAM ENHANCED WELL VENTS, COLLECTED VAPORS PIPED FROM VAPOR CONTROL COMPRESSOR SKIDS EITHER TO INJECTION COMPRESSORS FOR RE-INJECTION TO DOGGR WELLS, OR CONTAINED WITHIN THE BALANCED CASING GAS COLLECTION SYSTEM (CGCS) (MAXWELL LEASE)

PERMIT UNIT REQUIREMENTS

1. Fin fan cooler may be transported to and installed at any vapor skid within the casing vent vapor collection system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
3. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
4. Operation shall include vapor control equipment which consists of miscellaneous knockout vessels & liquid removal pumps, condensate tanks, heat exchangers, gas coolers, vapor compressors, and piping to disposal devices. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Piping to re-injection system shall include re-injection knock out vessels, interstage coolers & gas/liquid separators, injection gas compressors and liquid transfer pumps, as needed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system or injected into formation using DOGGR-approved disposal wells. Permittee shall cease injecting vapors and notify the District if DOGGR disposal approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District Rule 2080] 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 emissions from all components (except those operating under negative pressure at all times) in gas service including polish rods associated with this TEOR operation shall not exceed 140.1 lb VOC/ day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Records shall be kept of DOGGR injection well(s) utilized and volume of vapors injected. Records shall be made readily available to the District upon request. [District Rule 1070] 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: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-127-21 | Jan 25 2022 2:59PM - HONGM

10. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY SUNSET, KERN COUNTY, CA

S-1135-127-21 : Jan 25 2022 2:59PM -- HONGM

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-128-30

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY OPERATION (TEOR) SERVING 265 STEAM ENHANCED WELLS INCLUDING BALANCED WELL VENT CONTROL SYSTEM, PIPING TO DISPOSAL WELLS, TIED TO TEOR S-1135-129, TVR S-1135-149, S-1135-281, AND TEST SEPARATOR (NEELY LEASE)

PERMIT UNIT REQUIREMENTS

1. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
2. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
3. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system or injected into formation using DOGGR-approved disposal wells. Permittee shall cease injecting vapors and notify the District if DOGGR disposal approval is revoked, denied, terminated, surrendered or altered to disallow disposal. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit an accurate fugitive component count and resulting emissions calculated using EPA Publication 453/R-95-017 November 1995. Permit count and resulting emissions shall be updated annually within 60 days of permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC fugitive emissions from the components in gas service for this permit unit shall not exceed 16.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC fugitive emissions from the components in gas service from the piping from CPMS to the existing piping on the Casing Gas Collection System shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall maintain accurate component count for tank 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 < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the requirements of District Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
9. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-129-31

EXPIRATION DATE: 05/31/2021

SECTION: NW21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY OPERATION AUTHORIZED FOR 425 STEAM ENHANCED WELLS INCLUDING BALANCED WELL VENT CONTROL SYSTEM, VAPOR PIPING TO INJECTION WELLS AND CONNECTED TO VESSELS S-1135-346 THROUGH '-351 AND '-353 THROUGH '-356 (ANDERSON-GOODWIN LEASE)

PERMIT UNIT REQUIREMENTS

1. Volatile organic compound (VOC) emissions from the entire system (including fugitive emissions from components handling vapor and condensate) shall not exceed 143.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
3. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
4. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system or injected into formation using DOGGR-approved disposal wells. Permit holder shall cease injecting vapors and notify the District if DOGGR injection approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain accurate component count for tank 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 < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-129-31 : Jan 25 2022 2:59PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-149-26

EXPIRATION DATE: 05/31/2021

SECTION: NW 21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL CRUDE OIL LACT TANK ID# AG-01, WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1135-150, '151, '270, '301, '323, '339, AND VESSELS S-1135-346 THROUGH '-351 AND '-353 THROUGH '-356 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Vapor control system shall contain vapor control system piping network and vapor compression system consisting of vapor compressor(s), air-cooled heat exchanger, inlet scrubber, pump, and discharge scrubber. Collected vapors shall be compressed to the Andersen-Goodwin Lease TEOR skid S-1135-129 for disposal. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Compressor suction and knockout drum liquids shall be piped only to vapor-controlled tanks. [District Rule 2520] Federally Enforceable Through Title V Permit
9. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 10.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Maximum VOC content of hydrocarbons in tank vapor shall not exceed 20% by weight. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 4623] Federally Enforceable Through Title V Permit
12. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.5 psia under all storage conditions. [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.

13. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor recovery system and resulting emissions calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017. [District Rule 2080] Federally Enforceable Through Title V Permit
14. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
15. AG DEHY VAPOR RECOVERY CONDITION: The tank shall be equipped with a vapor loss prevention system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
16. AG DEHY VAPOR RECOVERY CONDITION: Except during periods of tank cleaning, inspections, and maintenance allowed by this permit, tank shall be connected to a vapor control system that is functional and operating as designed. [District Rule 2201] Federally Enforceable Through Title V Permit
17. AG DEHY VAPOR RECOVERY CONDITION: All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
18. AG DEHY VAPOR RECOVERY CONDITION: Tanks seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
19. AG DEHY INSPECTION CONDITION: A gas leak is a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with EPA Method 21. A liquid leak is the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623] Federally Enforceable Through Title V Permit
20. AG DEHY VAPOR RECOVERY CONDITION: Operator shall monitor vapor control system pressures on quarterly basis to ensure that system pressure does not exceed pressure relief valve setting. [District Rule 2520] Federally Enforceable Through Title V Permit
21. AG DEHY TESTING CONDITION: Permittee shall conduct true vapor pressure (TVP) and API gravity 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
22. AG DEHY TESTING CONDITION: 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. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
23. AG DEHY TESTING CONDITION: Permittee shall retain records of TVP and API gravity testing for District inspection upon request. 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 2080] Federally Enforceable Through Title V Permit
24. AG DEHY TANK CLEANING CONDITION: This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
25. AG DEHY TANK CLEANING CONDITION: There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

26. AG DEHY TANK CLEANING CONDITION: Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor recovery system during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed. Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
27. AG DEHY TANK CLEANING CONDITION: Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
28. AG DEHY TANK CLEANING CONDITION: Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
29. AG DEHY VAPOR RECOVERY CONDITION: Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2201] Federally Enforceable Through Title V Permit
30. AG DEHY VAPOR RECOVERY CONDITION: The pressure transmitters shall be inspected and maintained in good operating conditions. The inspections shall be conducted on a quarterly basis. Replacing and repairing of each pressure transmitters shall not exceed one hour per day. [District Rule 2520] Federally Enforceable Through Title V Permit
31. AG DEHY INSPECTION CONDITION: All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit
32. AG DEHY INSPECTION CONDITION: A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520] Federally Enforceable Through Title V Permit
33. AG DEHY INSPECTION CONDITION: An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit
34. AG DEHY INSPECTION CONDITION: Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
35. AG DEHY INSPECTION CONDITION: Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520] 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.

36. AG DEHY INSPECTION CONDITION: If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520] Federally Enforceable Through Title V Permit
37. AG DEHY INSPECTION CONDITION: Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520] Federally Enforceable Through Title V Permit
38. AG DEHY VAPOR RECOVERY CONDITION: Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. [District Rule 1070] Federally Enforceable Through Title V Permit
39. AG DEHY TESTING CONDITION: 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

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-150-17

EXPIRATION DATE: 05/31/2021

SECTION: 21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL CRUDE OIL LACT TANK ID# AG-02, WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-149 (ANDERSON/GOODWIN LEASE)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Tank shall be vented only to vapor control system listed on S-1135-149. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 2.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Maximum VOC content of hydrocarbons in tank vapor shall not exceed 20% by weight. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
14. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
15. This unit is subject to the AG Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-151-17

EXPIRATION DATE: 05/31/2021

SECTION: 21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

5,000 BBL REJECT TANK ID# AG-03, WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-149
(ANDERSON/GOODWIN LEASE)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Tank shall be vented only to vapor control system listed on S-1135-149. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 1.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Maximum VOC content of hydrocarbons in tank vapor shall not exceed 20% by weight. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
14. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
15. This unit is subject to the AG Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-173-26

EXPIRATION DATE: 05/31/2021

SECTION: 14 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,600 BBL (67,200 GALLON) FIXED ROOF LACT TANK ID# WS-01, HANDLING MAXWELL LEASE PRODUCTION, AND VESSELS V-101, V-102, V-103, AND V-104; WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1135-174, -175, -178, -325, AND -337 (W&S LEASE) DISCHARGING TO TEOR WVCES S-1135-125

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Vapor control system shall contain vapor control system piping network and vapor compression system consisting of two vapor compressors, fin fan aerial cooler, and knockout vessels. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vapor control system piping network shall include vapor space piping and make-up gas serving storage tanks S-1135-173, '-174, '-175, '-178, '-325, and '-337 with vapor control piping to W&S TEOR operation S-1135-125. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Compressor knock-out drum liquids shall be piped only to vapor controlled tanks or crude sales line. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 2.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
7. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
8. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
9. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-173-26 : Jan 25 2022 2:59PM -- HONGM

11. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
12. MAXWELL DEHY VAPOR RECOVERY CONDITION: The tank shall be equipped with a vapor loss prevention system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
13. MAXWELL DEHY VAPOR RECOVERY CONDITION: Except during periods of tank cleaning, inspections, and maintenance allowed by this permit, tank shall be connected to a vapor control system that is functional and operating as designed. [District Rule 2201] Federally Enforceable Through Title V Permit
14. MAXWELL DEHY VAPOR RECOVERY CONDITION: All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
15. MAXWELL DEHY VAPOR RECOVERY CONDITION: Tanks seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
16. MAXWELL DEHY TANK CLEANING CONDITION: This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
17. MAXWELL DEHY TANK CLEANING CONDITION: There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
18. MAXWELL DEHY TANK CLEANING CONDITION: Prior to opening the tank to allow tank cleaning, the following procedure must be followed: Operate PV valve and vapor control system during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed. Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
19. MAXWELL DEHY TANK CLEANING CONDITION: Prior to opening the tank to allow tank cleaning, one of the following options must be followed: 1) operate the vapor control system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
20. MAXWELL DEHY TANK CLEANING CONDITION: Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
21. MAXWELL DEHY VAPOR RECOVERY CONDITION: Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2201] Federally Enforceable Through Title V Permit
22. MAXWELL DEHY VAPOR RECOVERY CONDITION: The pressure transmitters shall be inspected and maintained in good operating conditions. The inspections shall be conducted on a quarterly basis. Replacing and repairing of each pressure transmitters shall not exceed one hour per day. [District Rule 2520] 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.

23. MAXWELL DEHY INSPECTION CONDITION: All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit
24. MAXWELL DEHY INSPECTION CONDITION: A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520] Federally Enforceable Through Title V Permit
25. MAXWELL DEHY INSPECTION CONDITION: An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit
26. MAXWELL DEHY INSPECTION CONDITION: Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
27. MAXWELL DEHY INSPECTION CONDITION: Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520] Federally Enforceable Through Title V Permit
28. MAXWELL DEHY INSPECTION CONDITION: If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520] Federally Enforceable Through Title V Permit
29. MAXWELL DEHY INSPECTION CONDITION: Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520] Federally Enforceable Through Title V Permit
30. MAXWELL DEHY VAPOR RECOVERY CONDITION: Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. [District Rule 1070] Federally Enforceable Through Title V Permit
31. MAXWELL DEHY TESTING CONDITION: Permittee shall conduct true vapor pressure (TVP) and API gravity 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

32. MAXWELL DEHY TESTING CONDITION: 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. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
33. MAXWELL DEHY TESTING CONDITION: 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
34. MAXWELL DEHY TESTING CONDITION: Permittee shall retain records of TVP and API gravity testing for District inspection upon request. 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 2080] Federally Enforceable Through Title V Permit
35. MAXWELL DEHY INSPECTION CONDITION: A gas leak is a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with EPA Method 21. A liquid leak is the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623] Federally Enforceable Through Title V Permit
36. MAXWELL DEHY VAPOR RECOVERY CONDITION: Operator shall monitor vapor control system pressures on quarterly basis to ensure that system pressure does not exceed pressure relief valve setting. [District Rule 2520] 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-1135-174-13

EXPIRATION DATE: 05/31/2021

SECTION: 14 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

2,000 BBL (84,000 GALLON) FIXED ROOF WASH TANK ID# WS-02, HANDLING MAXWELL LEASE PRODUCTION, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall be vented only to vapor control system listed on S-1135-173. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
6. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
7. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
8. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
9. The Standard Maxwell Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-173 apply to the equipment operating under this permit. Deviations from a Standard Maxwell Condition shall be reported under the applicable condition in S-1135-173. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-174-13 : Jan 25 2022 2:59PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-175-12

EXPIRATION DATE: 05/31/2021

SECTION: 14 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,600 BBL (67,200 GALLON) FIXED ROOF LACT TANK ID# WS-03, HANDLING MAXWELL LEASE PRODUCTION, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall be vented only to vapor control system listed on S-1135-173. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
7. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
8. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. The Standard Maxwell Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-173 apply to the equipment operating under this permit. Deviations from a Standard Maxwell Condition shall be reported under the applicable condition in S-1135-173. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY SUNSET, KERN COUNTY, CA

S-1135-175-12 : Jan 25 2022 2:59PM -- HONGM

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-178-14

EXPIRATION DATE: 05/31/2021

SECTION: 14 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL (126,000 GALLON) FIXED ROOF SUMP PROCESS TANK ID# WS-06, HANDLING MAXWELL LEASE PRODUCTION, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall be vented only to vapor control system listed on S-1135-173. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
6. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
7. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
8. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-178-14 : Jan 25 2022 2:59PM - HONGM

10. The Standard Maxwell Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-173 apply to the equipment operating under this permit. Deviations from a Standard Maxwell Condition shall be reported under the applicable condition in S-1135-173. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY SUNSET, KERN COUNTY, CA

S-1135-178-14 : Jan 25 2022 2:59PM - HONGM

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-224-31

EXPIRATION DATE: 05/31/2021

SECTION: 17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

78.2 MW COGENERATION UNIT A WITH GE MODEL G7111E FRAME 7E GAS TURBINE ENGINE WITH DRY LOW NOX COMBUSTORS (DLN1+ TURNDOWN ENHANCE), SELECTIVE CATALYTIC REDUCTION (SCR), AND UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG)

PERMIT UNIT REQUIREMENTS

1. CTG exhaust after the SCR unit shall be equipped with continuously recording emissions monitors dedicated to this unit for NO_x, CO, and O₂. Continuous emissions monitors shall meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
2. CTG shall be equipped with a continuously recording emission monitor preceding the SCR module measuring NO_x concentration for the purposes of calculating ammonia slip. Permittee shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours) when SCR is operated. The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-control. If the analyzer is out-of-control, the permittee shall take appropriate corrective action and then repeat the CD check. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
3. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO_x and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When SCR is operated, permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When SCR is operated, ammonia shall be injected whenever the selective catalytic reduction system catalyst temperature exceeds the minimum ammonia injection temperature recommended by the manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Gas turbine engine shall be equipped with fuel consumption monitor recorder accurate to +/- 3%. [District Rule 2201] Federally Enforceable Through Title V Permit
8. CEM for NO_x (as NO₂) and CO shall conform to Rule 1080 specifications. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit
9. HRSG exhaust stack shall be equipped with permanent stack sampling provisions adequate to facilitate testing consistent with EPA test methods. [District Rule 2201], Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. Flue gas ducting from engine to HRSG shall have no provisions for introduction of dilution air. [District Rule 1110] Federally Enforceable Through Title V Permit
11. Lube oil cooler/accumulation vent shall be equipped with control device(s) approved by the APCO sufficient to prevent emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Lube oil cooler/accumulator vent(s) shall not have detectable emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Natural gas sulfur content shall not exceed 0.31 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All CEM's shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60 Appendix B. [District Rule 1080] Federally Enforceable Through Title V Permit
15. Quarterly CEM reports shall be submitted to the APCO according to EPA regulations as specified in 40 CFR 60 Appendix B. [District Rules 1080 and 4001] Federally Enforceable Through Title V Permit
16. Audits of all monitors shall be conducted by independent laboratory in accordance with EPA guidelines and witnessed by District. Reports shall be submitted to District within 60 days of audits. [District Rule 1080] Federally Enforceable Through Title V Permit
17. All notification, recordkeeping, performance tests, reporting requirements, and compliance testing requirements of Rule 4001 NSPS shall be satisfied. [District Rule 4001] Federally Enforceable Through Title V Permit
18. Operational records including fuel type, fuel characteristics, and consumption shall be maintained and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
19. Accurate records of NO_x (as NO₂) and CO flue gas concentration corrected to 15% O₂ and fuel gas sulfur content shall be maintained and shall be reported as described in Rule 1080 upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
20. Emission rates shall not exceed the following: PM₁₀: 0.010 lb/MMBtu, SO_x (as SO₂): 0.001 lb/MMBtu, NO_x (as NO₂): 0.018 lb/MMBtu, VOC: 0.009 lb/MMBtu, CO: 0.057 lb/MMBtu, and ammonia - 10 ppmvd @ 15%O₂. [District Rules 2201 and 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
21. Permittee shall comply with the following emission limit at all times except during periods of start-up, shutdown, or reduced load: NO_x (as NO₂): 5.0 ppmv, and CO: 25 ppmv, dry @ 15% O₂ corrected to ISO conditions. [District Rule 4703, 40 CFR 60.332(a)(1) and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
22. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
24. Gas turbine reduced load period is that period not exceeding one hour in duration during which the unit is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
25. Compliance with NO_x and CO emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory on an annual basis. Compliance with NO_x, CO and ammonia emissions limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days of any use of the SCR system, unless compliance with emissions limitations has been demonstrated with the SCR system in operation within the preceding 12 month period. [District Rules 1081 and 4703] 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.

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The following test methods shall be used PM10: EPA method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA method 10 (or 10B) or CARB Method 100, O2: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
28. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 = $((a-(bxc/1,000,000)) \times 1,000,000 / b) \times d$, where a = ammonia injection rate(lb/hr)/17(lb/lb. mol), b = dry exhaust gas flow rate (lb/hr)/(29(lb/lb. mol), c = change in measured NOx concentration ppmv at 15% O2 across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. [District Rule 4102]
29. Official test results and field data shall be submitted within 60 days after collection. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
30. Combined annual emissions from units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, S-1135-226 shall not exceed any of the following: PM10 - 262,360 lb per rolling 12-month period, SOx (as SO2) - 24,200 lb per rolling 12-month period, NOx (as NO2) - 464,170 lb per rolling 12-month period, VOC - 236,520 lb per rolling 12-month period, or CO - 1,443,101 lb per rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions, based on a rolling 12-month average, for each unit. For units equipped with continuous emissions monitors (CEMs), CEM data may be used in place of calculated emissions. If CEM shows a violation, CEM data shall be used. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
32. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District Rule 2201] Federally Enforceable Through Title V Permit
33. When three gas turbine engines S-1135-224, '-225, and '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
34. When up to two gas turbine engines S-1135-224, '-225, or '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 may be operated. [District Rule 2201] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of operational status of units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, and S-1135-226 on a daily basis. [District Rule 2201] Federally Enforceable Through Title V Permit
36. 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 4703] Federally Enforceable Through Title V Permit
37. CEC emission rates, except during periods of startup, shutdown, or reduced load shall not exceed PM10: 9.98 lb/hr, SOx (as SO2): 0.92 lb/hr, NOx (as NO2): 17.66 lb/hr, VOC: 9.00 lb/hr, and CO: 54.91 lb/hr. [District Rules 2080 and 4703, and 40 CFR 60] Federally Enforceable Through Title V Permit
38. For CEC purposes, emissions during periods of startup and shutdown shall not exceed the following values average over 2 hours: NOx: 140 lb/hr, and CO: 94 lb/hr. [District Rule 2080] Federally Enforceable Through Title V Permit
39. The CEC shall be notified of any changes to the combined annual emission limits for steam generators S-1135-115, -119, -122, and -123, and cogeneration units S-1135-224, -225, and -226, only to the extent to be informed of their impact on the Midway-Sunset Cogeneration Facility. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

40. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit
41. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [Kern County Rule 108, District Rules 1080 and 4703, and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
42. The permittee shall maintain hourly average records of NOx and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by the CO CEM data and the VOC/CO relationship determined by annual CO and VOC source tests of NOx, CO, and ammonia emission concentrations (ppmv @ 15% O2), and hourly, daily, and twelve month rolling. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit
44. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit
45. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 1081] Federally Enforceable Through Title V Permit
46. Unit shall be fired on a natural gas which has a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801, 40 CFR 60.333(a), 40 CFR 60.333(b), 40 CFR 60.334(c)(2), and Kern County Rule 407] Federally Enforceable Through Title V Permit
47. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
48. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using method(s) specified on this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
49. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246, or double GC for H2S and mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
50. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
51. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(a)(2)] Federally Enforceable Through Title V Permit
52. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 40 CFR 60.332(a), and 40 CFR 60.332(b)] Federally Enforceable Through Title V Permit
53. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [District Rule 4703, 40 CFR 60.332(a), and 40 CFR 60.332(b)] Federally Enforceable Through Title V Permit
54. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [District Rule 4703, 40 CFR 60.334(a), 40 CFR 60.334(b), and 40 CFR 60.334(c)] 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.

55. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [District Rule 4703, 40 CFR 60.332(a), and 40 CFR 60.332(b)] Federally Enforceable Through Title V Permit
56. This unit is a simple combustion turbine as defined in 40 CFR 72.6 (b)(1) and shall not be subject to the requirements of 40 CFR Part 72. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
57. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rules 404, 108, and 108.1. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: Kern County Rule 407; District Rules 4801, 4201, 1081, and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332 (c) and (d); 60.334 (b), (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
60. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: District Rules 1080, 7.3 and 4703, 6.2.2; 40 CFR 60.332(a), (b); 60.333(a) and (b), 60.334(a), (b), and (c)(1); 60.335(a), (b) and (c)(2). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
61. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
62. The Permittee (MSCC) must notify EPA by telephone, facsimile, or electronic mail transmission within two (2) working days following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit stated in any conditions where PSD is cited as the basis of the condition. In addition, the Permittee (MSCC) must notify EPA in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in any conditions where PSD is cited as the basis of the condition, and the methods utilized to mitigate emissions and restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause, except as provided for in the conditions where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
63. A malfunction means a sudden and unavoidable breakdown of equipment or of a process beyond the reasonable control of the source. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
64. Emissions in excess of the limits specified in any conditions where PSD is cited as the basis of the condition shall constitute a violation of this permit and may be the subject of enforcement proceedings. [PSD SJ-87-01] 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.

65. Affirmative defense: In the context of an enforcement proceeding, emissions which are below the limits set forth in any condition where PSD is cited as the basis of the condition shall not be subject to penalty if the Permittee (MSCC) retains properly signed, contemporaneous operating logs or other relevant evidence and can demonstrate all of the following: i.) A malfunction caused the emissions in excess of the limits in any condition where PSD is cited as the basis of the condition; ii.) The permitted facility, including the air pollution control equipment and process equipment, was being properly operated at the time of the malfunction; iii.) Preventative maintenance was regularly performed in a manner consistent with good practice for minimizing emissions; iv.) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; v.) During the period of the malfunction, the permittee (MSCC) took all reasonable steps to minimize the amount and duration of emissions (including any bypass) that exceeded the emission limits provided in any condition where PSD is cited as the basis of the condition. Reasonable steps to minimize emissions could include, but are not limited to, reducing production to the lowest level practicable, reducing the material feed that results in the increased emissions, and switching to alternative, less polluting fuels. Where repairs were required, repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as possible; and vi.) The permittee (MSCC) complied with the malfunction reporting requirements as specified in the condition where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
66. All emissions, including those associated with a malfunction which may be eligible for an affirmative defense, must be included in all emissions calculations and demonstrations of compliance with mass emission limits (e.g., daily, monthly, and annual emission limits) specified in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
67. This provision is in addition to any emergency or malfunction provision contained in any applicable requirement or elsewhere in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
68. The EPA Regional Administrator, and/or their authorized representative, upon the presentation of credential, must be permitted: (1) to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of the PSD permit SJ-87-01; and (2) at reasonable times to have access to and copy any records required to be kept under the terms and conditions of PSD permit SJ 87-01; and (3) to inspect any equipment, operation, or method required in the PSD permit SJ-87-01; and (4) to sample emissions from source(s). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
69. In the event of any changes in control or ownership of facilities to be constructed or modified, this permit shall be binding on all subsequent owners and operators. The Permittee (MSCC) shall notify the succeeding owner and operator of the existence of the PSD permit SJ-87-01 and its conditions by letter, a copy of which shall be forwarded to the EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
70. The provisions of the PSD permit SJ-87-01 are severable, and, if any provisions of the permit is held invalid, the remainder of the permit must not be affected thereby. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
71. The permittee (MSCC) must construct and operate the proposed power plant in compliance with all other applicable provisions of 40 CFR Parts 52, 60, 62, and 63 and all other applicable Federal, State, and local air quality regulations. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
72. On or before the date of startup (as defined in 40 C.F.R. 60.2) of the Western Midway Sunset Cogeneration Project (WMSCP; PSD Permit No. SJ-00-01) and thereafter the Permittee (MSCC) must install, continuously operate, and maintain the Dry Low NOx (DLN) combustion systems to reduce NOx emissions from each of its three turbines. The Permittee (MSCC) shall also use proper combustion techniques for the control of CO emissions from the equipment at MSCP. [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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73. Within 60 days after achieving the base load, but no later than 180 days after initial startup of all three modified turbines (as defined in 40 C.F.R. 60.2), and annually thereafter (at about the anniversary of the initial performance test), the Permittee (MSCC) must conduct performance tests (as described in 40 C.F.R. 60.8) for NO_x and CO on the exhaust stack gases. The Permittee (MSCC) must furnish the District, the California Air Resources Board (CARB), and the EPA a written report of the results of such tests. Upon written request from the Permittee (MSCC), and adequate justification, EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
74. Performance tests for the emissions of NO_x and CO must be conducted and the results reported in accordance with the test methods set forth in 40 C.F.R. 60.8 and 40 C.F.R. 60, Appendix A. The following test methods must be used: a.) Performance tests for the emissions of NO_x must be conducted using EPA Method 1-4 and 7E. b.) Performance tests for the emissions of CO must be conducted using the EPA Methods 1-4 and 10. In lieu of the above-mentioned test methods, equivalent methods may be used with prior written approval from EPA. The Permittee (MSCC) must notify EPA in writing at least 30 days prior to such tests to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
75. For performance test purposes, sampling ports, platforms, and access must be provided by the Permittee on the emission unit exhaust system in accordance with 40 C.F.R. 60.8(e). [PSD SJ 87-01] Federally Enforceable Through Title V Permit
76. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of CO into the atmosphere in excess of the following emission limits per turbine: The more stringent of 25 ppmvd @ 15% O₂ or 55 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
77. This condition applies prior to the startup of the WMSCP: On and after the date of start up any of the three turbines at MSCP must not discharge (per turbine, and based on 3-hour rolling average) into the atmosphere CO in excess of the following of any of: 1.) The more stringent of 52.0 ppmvd @ 15% O₂ or 94 pounds for loads greater than or equal to 75%. 2.) The more stringent of 62.0 ppmvd @ 15% O₂ or 94 pounds for loads greater than or equal to 35% but less than 75%. 3.) 94 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
78. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of NO_x into the atmosphere in excess of the following emission limits per turbine: The more stringent of 10 ppmvd @ 15% O₂ or 36.1 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
79. This condition applies prior to the startup of the WMSCP: On and after the date of start-up of any of the three turbines, MSCC must not discharge (per turbine, based on 3-hour rolling average) into the atmosphere NO_x (as NO₂) in excess of the following: 1.) The more stringent of 25.0 ppmvd @ 15% O₂ or 85.0 pounds per hour for loads greater than or equal to 75%; 2.) The more stringent of 42.0 ppmvd @ 15% O₂ or 85 pounds per hour for loads greater than or equal to 35% but less than 75%; 3.) 85 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
80. The hourly (3-hour averaging) emissions must not exceed: 1.) 94 pounds of CO and 85 pounds of NO_x; 2.) All CEMs must be operating during startups and shut downs; 3.) The time, date and duration of each startup and shutdown event must be recorded. The records must include the lbs/hour calculations based on the CEM data. These records must be kept for five years following the date of such events. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
81. Prior to the date of startup and thereafter, the Permittee (MSCC) must install, maintain and operate the following continuous monitoring systems (CEMs) in the exhaust stacks: a.) Continuous monitoring systems to measure stack gas NO_x, CO and O₂ concentrations. The systems must meet EPA monitoring performance specification (40 C.F.R. 60.13 and 40 C.F.R. 60, Appendix B, Performance Specifications 2, 3 and 4); b.) A continuous monitoring system to measure stack gas and natural gas volumetric flow rates. The stack gas flow measurement system must meet EPA Performance Specifications for (40 C.F.R. Part 52, Appendix E). [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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82. The Permittee (MSCC) must maintain a file of all measurements, including continuous monitoring systems evaluations; all continuous monitoring systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; performance and all other information required by 40 C.F.R. 60 Appendices A-B recorded in a permanent form suitable for inspection. The file must be retained for five years following the date of such measurements, maintenance, reports and records. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
83. The Permittee (MSCC) must notify EPA of the date on which demonstration for the continuous monitoring system performance commences (40 C.F.R. 60.13). This date must be no later than 60 days after full load operation but not later than 180 days after startup. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
84. The Permittee (MSCC) must submit a written report of all excess emissions to EPA for every calendar quarter. The quarterly report must include the following: a.) The magnitude of the excess emissions computed in accordance with 40 C.F.R. 60.13(h), any conversion factors used, and the date and time of commencement and compilation of each time period of excess emissions; b.) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of any equipment. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted must also be reported; c.) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments; d.) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information must be stated in the report; and e.) Excess emissions must be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM exceeds the maximum emission limits set forth in the condition with a CO emission limit, where PSD is cited as the basis of the condition or any 3-hour period during which the average emissions of NO_x exceed the maximum emission limits set forth in the condition with a NO_x emission limit, where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
85. Excess emissions indicated by the CEM system must be considered violations of the applicable emission limit for the purpose of this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
86. The quality assurance project plan used by the Permittee (MSCC) for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 C.F.R. Part 60, Appendix F, must be available upon request to EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
87. The Permittee (MSCC) must keep a monthly record of all fuel uses. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
88. The proposed power plant is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 C.F.R. 60). The owner or operator must meet all applicable requirements of 40 C.F.R. 60 Subparts A and GG of this regulation. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
89. All three turbines will fire natural gas only. The Permittee (MSCC) must only combust pipeline quality natural gas with sulfur content (as S) below 0.75 grains per 100 dry standard cubic feet (dscf). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
90. MSCC shall have legal and operational responsibility and control of all air pollutant emitting activities of the MSCP. This responsibility shall include, but shall not be limited to the following: 1.) Operating and maintaining the project to comply with all federal, state, and local air pollution laws, regulations, orders, and other requirements; 2.) Ensuring the emissions offsets, tradeoffs, or other emission reductions required for this project under permits issued by the U.S. EPA, the District, and/or the California Energy Commission are obtained as required; or 3.) Any violations of any air pollution requirements are the legal responsibility of MSCC, in addition to any other legal responsible entity. Any proposed change to this condition shall require prior written concurrence of the US EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
91. In accordance with the emissions offset plan proposed by the applicant for the District (dated November 12, 1987) and the emissions offset plan for the U.S. EPA (dated July 21, 1987), Aera Energy LLC must not operate the following four steam generators (listed by District permit numbers S-1135-119, S-1135-122, S-1135-123, and S-1135-115) simultaneously with the firing of the MSCP turbines unless one or more of the MSCP turbines is shutdown: Andersen-Goodwin Lease: S-1135-119, S-1135-122, S-1135-123 and Neely Lease: S-1135-115 [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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92. MSCC shall maintain a record of the date(s), time(s), and duration(s) of the shutdown of any of the above mentioned steam generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
93. Aera Energy LLC shall not lease or modify the permit conditions for any of the above generators for use in the Midway Sunset Oil field, unless creditable emissions reductions (as defined in 40 C.F.R. 52.21), at a ratio of at least 1:1, are provided for emissions from those generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
94. Aera Energy LLC shall not modify any of the District Permit to Operate numbers. If any of the above steam generators are issued new Permit to Operate numbers by the District, Aera Energy LLC shall notify the U.S. EPA in writing of this action and shall make such notification upon issuance of a new Permit to Operate number. This letter shall include the original District Permit to Operate number(s) of the subject generator(s) and a copy of the new Permit to Operate issued by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
95. Aera Energy LLC shall notify the U.S. EPA in writing of the intention to sell, or potential sale, of any of the above generators and shall make such notification prior to the District's final action of the re-permitting process associated with the sale of a generators. This letter shall include the following: a.) The subject steam generator as identified by its District Permit to Operate number; b.) The name of the buyer (as identified by the company name) of the steam generator; and c.) An estimated date of the final action of the re-permitting process by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
96. The allowable incidental taking (killing, harming, or harassment) of San Joaquin kit foxes, blunt-nosed leopard lizards, and giant kangaroo rats is confined to the proposed cogeneration plant site one half mile radius around this site (on lands owned or leased by Aera Energy LLC), and associated subject cogeneration plant facilities (including pipelines, transmission lines, temporary equipment stockpiling areas, and access roads) as discussed in the project Application for Certification report (Sun Cogeneration Company and Southern Sierra Energy Company 1985). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
97. MSCC is required to implement the "Agreement on Conditions for Mitigation of the Biological Impacts of the Midway-Sunset Project" as required by the U.S. Fish and Wildlife Service (USFWS) (Memorandum dated March 16, 1987 from the USFWS to the US EPA). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
98. Any endangered species found dead should be turned in to the California Department of Fish and Game for Analysis. MSCC must also report this event to the USFWS. The USFWS may recommend amendment to the existing project actions pending results of the analysis. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
99. All correspondence as required by this permit shall be forwarded to: 1.) Director, Air Division (Attn: Air-3) EPA Region IX 75 Hawthorne Street San Francisco, CA 94105-3901 Tel: (415) 744-1291 Fax: (415) 744-1076; 2.) Chief, Stationary Source Division, California Air Resource Board P.O. Box 2815 Sacramento, CA 95812; and 3.) Air Pollution Control Officer, San Joaquin Valley Unified APCD 2700 M Street, Suite 275 Bakersfield, CA 93301-2370. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
100. Aera Energy LLC is the legal owner of the subject steam generators and of the leases on which the steam generators are located. MSCC is the legal owner of the gas turbine cogeneration facility. MSCC is jointly owned by Sun Cogeneration Limited Partnership (Sun Cogen LP) and San Joaquin Energy Company. Sun Cogen LP is managed and controlled by a wholly owned subsidiary of Aera Energy LLC. (See Condition 104) [PSD SJ-87-01] 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-1135-225-30

EXPIRATION DATE: 05/31/2021

SECTION: 17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

78.2 MW COGENERATION UNIT B WITH GE MODEL G7111E FRAME 7E GAS TURBINE ENGINE WITH DRY LOW NOX COMBUSTORS (DLN1+ TURNDOWN ENHANCE), SELECTIVE CATALYTIC REDUCTION (SCR), AND UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG)

PERMIT UNIT REQUIREMENTS

1. CTG exhaust after the SCR unit shall be equipped with continuously recording emissions monitors dedicated to this unit for NO_x, CO, and O₂. Continuous emissions monitors shall meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
2. CTG shall be equipped with a continuously recording emission monitor preceding the SCR module measuring NO_x concentration for the purposes of calculating ammonia slip. Permittee shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours) when SCR is operated. The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-control. If the analyzer is out-of-control, the permittee shall take appropriate corrective action and then repeat the CD check. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
3. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO_x and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When SCR is operated, permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When SCR is operated, ammonia shall be injected whenever the selective catalytic reduction system catalyst temperature exceeds the minimum ammonia injection temperature recommended by the manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Gas turbine engine shall be equipped with fuel consumption monitor recorder accurate to +/- 3%. [District Rule 2201] Federally Enforceable Through Title V Permit
8. CEM for NO_x (as NO₂) and CO shall conform to Rule 1080 specifications. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit
9. HRSG exhaust stack shall be equipped with permanent stack sampling provisions adequate to facilitate testing consistent with EPA test methods. [District Rule 2201], Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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10. Flue gas ducting from engine to HRSG shall have no provisions for introduction of dilution air. [District Rule 1110] Federally Enforceable Through Title V Permit
11. Lube oil cooler/accumulation vent shall be equipped with control device(s) approved by the APCO sufficient to prevent emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Lube oil cooler/accumulator vent(s) shall not have detectable emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Natural gas sulfur content shall not exceed 0.31 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All CEM's shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60 Appendix B. [District Rule 1080] Federally Enforceable Through Title V Permit
15. Quarterly CEM reports shall be submitted to the APCO according to EPA regulations as specified in 40 CFR 60 Appendix B. [District Rules 1080 and 4001] Federally Enforceable Through Title V Permit
16. Audits of all monitors shall be conducted by independent laboratory in accordance with EPA guidelines and witnessed by District. Reports shall be submitted to District within 60 days of audits. [District Rule 1080] Federally Enforceable Through Title V Permit
17. All notification, recordkeeping, performance tests, reporting requirements, and compliance testing requirements of Rule 4001 NSPS shall be satisfied. [District Rule 4001] Federally Enforceable Through Title V Permit
18. Operational records including fuel type, fuel characteristics, and consumption shall be maintained and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
19. Accurate records of NO_x (as NO₂) and CO flue gas concentration corrected to 15% O₂ and fuel gas sulfur content shall be maintained and shall be reported as described in Rule 1080 upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
20. Emission rates shall not exceed the following: PM₁₀: 0.010 lb/MMBtu, SO_x (as SO₂): 0.001 lb/MMBtu, NO_x (as NO₂): 0.018 lb/MMBtu, VOC: 0.009 lb/MMBtu, CO: 0.057 lb/MMBtu, and ammonia - 10 ppmvd @ 15%O₂. [District Rules 2201 and 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
21. Permittee shall comply with the following emission limit at all times except during periods of start-up, shutdown, or reduced load: NO_x (as NO₂): 5.0 ppmv, and CO: 25 ppmv, dry @ 15% O₂ corrected to ISO conditions. [District Rule 4703, 40 CFR 60.332(a)(1), and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
22. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
24. Gas turbine reduced load period is that period not exceeding one hour in duration during which the unit is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
25. Compliance with NO_x and CO emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory on an annual basis. Compliance with NO_x, CO and ammonia emissions limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days of any use of the SCR system, unless compliance with emissions limitations has been demonstrated with the SCR system in operation within the preceding 12 month period. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The following test methods shall be used PM10: EPA method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA method 10 (or 10B) or CARB Method 100, O2: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
28. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 = $((a-(bxc/1,000,000)) \times 1,000,000 / b) \times d$, where a = ammonia injection rate(lb/hr)/17(lb/lb. mol), b = dry exhaust gas flow rate (lb/hr)/(29(lb/lb. mol), c = change in measured NOx concentration ppmv at 15% O2 across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. [District Rule 4102]
29. Official test results and field data shall be submitted within 60 days after collection. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
30. Combined annual emissions from units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, S-1135-226 shall not exceed any of the following: PM10 - 262,360 lb per rolling 12-month period, SOx (as SO2) - 24,200 lb per rolling 12-month period, NOx (as NO2) - 464,170 lb per rolling 12-month period, VOC - 236,520 lb per rolling 12-month period, or CO - 1,443,101 lb per rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions, based on a rolling 12-month average, for each unit. For units equipped with continuous emissions monitors (CEMs), CEM data may be used in place of calculated emissions. If CEM shows a violation, CEM data shall be used. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
32. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District Rule 2201] Federally Enforceable Through Title V Permit
33. When three gas turbine engines S-1135-224, '-225, and '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
34. When up to two gas turbine engines S-1135-224, '-225, or '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 may be operated. [District Rule 2201] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of operational status of units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, and S-1135-226 on a daily basis. [District Rule 2201] Federally Enforceable Through Title V Permit
36. 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 4703] Federally Enforceable Through Title V Permit
37. CEC emission rates, except during periods of startup, shutdown, or reduced load shall not exceed PM10: 9.98 lb/hr, SOx (as SO2): 0.92 lb/hr, NOx (as NO2): 17.66 lb/hr, VOC: 9.00 lb/hr, and CO: 54.91 lb/hr. [District Rules 2080 and 4703 and 40 CFR 60] Federally Enforceable Through Title V Permit
38. For CEC purposes, emissions during periods of startup and shutdown shall not exceed the following values average over 2 hours: NOx: 140 lb/hr, and CO: 94 lb/hr. [District Rule 2080] Federally Enforceable Through Title V Permit
39. The CEC shall be notified of any changes to the combined annual emission limits for steam generators S-1135-115, -119, -122, and -123, and cogeneration units S-1135-224, -225, and -226, only to the extent to be informed of their impact on the Midway-Sunset Cogeneration Facility. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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40. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit
41. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [Kern County Rule 108, District Rules 1080 and 4703, and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
42. The permittee shall maintain hourly average records of NOx and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by the CO CEM data and the VOC/CO relationship determined by annual CO and VOC source tests of NOx, CO, and ammonia emission concentrations (ppmv @ 15% O2), and hourly, daily, and twelve month rolling. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit
44. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit
45. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 1081] Federally Enforceable Through Title V Permit
46. Unit shall be fired on a natural gas which has a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801, 40 CFR 60.333(a), 40 CFR 60.333(b), 40 CFR 60.334(c)(2), and Kern County Rule 407] Federally Enforceable Through Title V Permit
47. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
48. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using method(s) specified on this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
49. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246, or double GC for H2S and mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
50. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
51. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(a)(2)] Federally Enforceable Through Title V Permit
52. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 40 CFR 60.332(a), and 40 CFR 60.332(b)] Federally Enforceable Through Title V Permit
53. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [District Rule 4703, 40 CFR 60.332(a), and 40 CFR 60.332(b)] Federally Enforceable Through Title V Permit
54. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [District Rule 4703, 40 CFR 60.334(a), 40 CFR 60.334(b), and 40 CFR 60.334(c)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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55. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [District Rule 4703, 40 CFR 60.332(a), and 40 CFR 60.332(b)] Federally Enforceable Through Title V Permit
56. This unit is a simple combustion turbine as defined in 40 CFR 72.6 (b)(1) and shall not be subject to the requirements of 40 CFR Part 72. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
57. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rules 404, 108, and 108.1. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: Kern County Rule 407; District Rules 4801, 4201, 1081, and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332 (c) and (d); 60.334 (b), (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
60. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: District Rules 1080, 7.3 and 4703, 6.2.2; 40 CFR 60.332(a), (b); 60.333(a) and (b), 60.334(a), (b), and (c)(1); 60.335(a), (b) and (c)(2). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
61. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
62. The Permittee (MSCC) must notify EPA by telephone, facsimile, or electronic mail transmission within two (2) working days following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit stated in any conditions where PSD is cited as the basis of the condition. In addition, the Permittee (MSCC) must notify EPA in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in any conditions where PSD is cited as the basis of the condition, and the methods utilized to mitigate emissions and restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause, except as provided for in the conditions where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
63. A malfunction means a sudden and unavoidable breakdown of equipment or of a process beyond the reasonable control of the source. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
64. Emissions in excess of the limits specified in any conditions where PSD is cited as the basis of the condition shall constitute a violation of this permit and may be the subject of enforcement proceedings. [PSD SJ-87-01] 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.

65. Affirmative defense: In the context of an enforcement proceeding, emissions which are below the limits set forth in any condition where PSD is cited as the basis of the condition shall not be subject to penalty if the Permittee (MSCC) retains properly signed, contemporaneous operating logs or other relevant evidence and can demonstrate all of the following: i.) A malfunction caused the emissions in excess of the limits in any condition where PSD is cited as the basis of the condition; ii.) The permitted facility, including the air pollution control equipment and process equipment, was being properly operated at the time of the malfunction; iii.) Preventative maintenance was regularly performed in a manner consistent with good practice for minimizing emissions; iv.) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; v.) During the period of the malfunction, the permittee (MSCC) took all reasonable steps to minimize the amount and duration of emissions (including any bypass) that exceeded the emission limits provided in any condition where PSD is cited as the basis of the condition. Reasonable steps to minimize emissions could include, but are not limited to, reducing production to the lowest level practicable, reducing the material feed that results in the increased emissions, and switching to alternative, less polluting fuels. Where repairs were required, repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as possible; and vi.) The permittee (MSCC) complied with the malfunction reporting requirements as specified in the condition where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
66. All emissions, including those associated with a malfunction which may be eligible for an affirmative defense, must be included in all emissions calculations and demonstrations of compliance with mass emission limits (e.g., daily, monthly, and annual emission limits) specified in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
67. This provision is in addition to any emergency or malfunction provision contained in any applicable requirement or elsewhere in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
68. The EPA Regional Administrator, and/or their authorized representative, upon the presentation of credential, must be permitted: (1) to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of the PSD permit SJ-87-01; and (2) at reasonable times to have access to and copy any records required to be kept under the terms and conditions of PSD permit SJ 87-01; and (3) to inspect any equipment, operation, or method required in the PSD permit SJ-87-01; and (4) to sample emissions from source(s). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
69. In the event of any changes in control or ownership of facilities to be constructed or modified, this permit shall be binding on all subsequent owners and operators. The Permittee (MSCC) shall notify the succeeding owner and operator of the existence of the PSD permit SJ-87-01 and its conditions by letter, a copy of which shall be forwarded to the EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
70. The provisions of the PSD permit SJ-87-01 are severable, and, if any provisions of the permit is held invalid, the remainder of the permit must not be affected thereby. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
71. The permittee (MSCC) must construct and operate the proposed power plant in compliance with all other applicable provisions of 40 CFR Parts 52, 60, 62, and 63 and all other applicable Federal, State, and local air quality regulations. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
72. On or before the date of startup (as defined in 40 C.F.R. 60.2) of the Western Midway Sunset Cogeneration Project (WMSCP; PSD Permit No. SJ-00-01) and thereafter the Permittee (MSCC) must install, continuously operate, and maintain the Dry Low NOx (DLN) combustion systems to reduce NOx emissions from each of its three turbines. The Permittee (MSCC) shall also use proper combustion techniques for the control of CO emissions from the equipment at MSCP. [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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73. Within 60 days after achieving the base load, but no later than 180 days after initial startup of all three modified turbines (as defined in 40 C.F.R. 60.2), and annually thereafter (at about the anniversary of the initial performance test), the Permittee (MSCC) must conduct performance tests (as described in 40 C.F.R. 60.8) for NO_x and CO on the exhaust stack gases. The Permittee (MSCC) must furnish the District, the California Air Resources Board (CARB), and the EPA a written report of the results of such tests. Upon written request from the Permittee (MSCC), and adequate justification, EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
74. Performance tests for the emissions of NO_x and CO must be conducted and the results reported in accordance with the test methods set forth in 40 C.F.R. 60.8 and 40 C.F.R. 60, Appendix A. The following test methods must be used: a.) Performance tests for the emissions of NO_x must be conducted using EPA Method 1-4 and 7E. b.) Performance tests for the emissions of CO must be conducted using the EPA Methods 1-4 and 10. In lieu of the above-mentioned test methods, equivalent methods may be used with prior written approval from EPA. The Permittee (MSCC) must notify EPA in writing at least 30 days prior to such tests to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
75. For performance test purposes, sampling ports, platforms, and access must be provided by the Permittee on the emission unit exhaust system in accordance with 40 C.F.R. 60.8(e). [PSD SJ 87-01] Federally Enforceable Through Title V Permit
76. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of CO into the atmosphere in excess of the following emission limits per turbine: The more stringent of 25 ppmvd @ 15% O₂ or 55 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
77. This condition applies prior to the startup of the WMSCP: On and after the date of start up any of the three turbines at MSCP must not discharge (per turbine, and based on 3-hour rolling average) into the atmosphere CO in excess of the following of any of: 1.) The more stringent of 52.0 ppmvd @ 15% O₂ or 94 pounds for loads greater than or equal to 75%. 2.) The more stringent of 62.0 ppmvd @ 15% O₂ or 94 pounds for loads greater than or equal to 35% but less than 75%. 3.) 94 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
78. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of NO_x into the atmosphere in excess of the following emission limits per turbine: The more stringent of 10 ppmvd @ 15% O₂ or 36.1 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
79. This condition applies prior to the startup of the WMSCP: On and after the date of start-up of any of the three turbines, MSCC must not discharge (per turbine, based on 3-hour rolling average) into the atmosphere NO_x (as NO₂) in excess of the following: 1.) The more stringent of 25.0 ppmvd @ 15% O₂ or 85.0 pounds per hour for loads greater than or equal to 75%; 2.) The more stringent of 42.0 ppmvd @ 15% O₂ or 85 pounds per hour for loads greater than or equal to 35% but less than 75%; 3.) 85 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
80. The hourly (3-hour averaging) emissions must not exceed: 1.) 94 pounds of CO and 85 pounds of NO_x; 2.) All CEMs must be operating during startups and shut downs; 3.) The time, date and duration of each startup and shutdown event must be recorded. The records must include the lbs/hour calculations based on the CEM data. These records must be kept for five years following the date of such events. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
81. Prior to the date of startup and thereafter, the Permittee (MSCC) must install, maintain and operate the following continuous monitoring systems (CEMs) in the exhaust stacks: a.) Continuous monitoring systems to measure stack gas NO_x, CO and O₂ concentrations. The systems must meet EPA monitoring performance specification (40 C.F.R. 60.13 and 40 C.F.R. 60, Appendix B, Performance Specifications 2, 3 and 4); b.) A continuous monitoring system to measure stack gas and natural gas volumetric flow rates. The stack gas flow measurement system must meet EPA Performance Specifications for (40 C.F.R. Part 52, Appendix E). [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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82. The Permittee (MSCC) must maintain a file of all measurements, including continuous monitoring systems evaluations; all continuous monitoring systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; performance and all other information required by 40 C.F.R. 60 Appendices A-B recorded in a permanent form suitable for inspection. The file must be retained for five years following the date of such measurements, maintenance, reports and records. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
83. The Permittee (MSCC) must notify EPA of the date on which demonstration for the continuous monitoring system performance commences (40 C.F.R. 60.13). This date must be no later than 60 days after full load operation but not later than 180 days after startup. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
84. The Permittee (MSCC) must submit a written report of all excess emissions to EPA for every calendar quarter. The quarterly report must include the following: a.) The magnitude of the excess emissions computed in accordance with 40 C.F.R. 60.13(h), any conversion factors used, and the date and time of commencement and compilation of each time period of excess emissions; b.) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of any equipment. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted must also be reported; c.) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments; d.) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information must be stated in the report; and e.) Excess emissions must be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM exceeds the maximum emission limits set forth in the condition with a CO emission limit, where PSD is cited as the basis of the condition or any 3-hour period during which the average emissions of NO_x exceed the maximum emission limits set forth in the condition with a NO_x emission limit, where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
85. Excess emissions indicated by the CEM system must be considered violations of the applicable emission limit for the purpose of this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
86. The quality assurance project plan used by the Permittee (MSCC) for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 C.F.R. Part 60, Appendix F, must be available upon request to EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
87. The Permittee (MSCC) must keep a monthly record of all fuel uses. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
88. The proposed power plant is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 C.F.R. 60). The owner or operator must meet all applicable requirements of 40 C.F.R. 60 Subparts A and GG of this regulation. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
89. All three turbines will fire natural gas only. The Permittee (MSCC) must only combust pipeline quality natural gas with sulfur content (as S) below 0.75 grains per 100 dry standard cubic feet (dscf). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
90. MSCC shall have legal and operational responsibility and control of all air pollutant emitting activities of the MSCP. This responsibility shall include, but shall not be limited to the following: 1.) Operating and maintaining the project to comply with all federal, state, and local air pollution laws, regulations, orders, and other requirements; 2.) Ensuring the emissions offsets, tradeoffs, or other emission reductions required for this project under permits issued by the U.S. EPA, the District, and/or the California Energy Commission are obtained as required; or 3.) Any violations of any air pollution requirements are the legal responsibility of MSCC, in addition to any other legal responsible entity. Any proposed change to this condition shall require prior written concurrence of the US EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
91. In accordance with the emissions offset plan proposed by the applicant for the District (dated November 12, 1987) and the emissions offset plan for the U.S. EPA (dated July 21, 1987), Aera Energy LLC must not operate the following four steam generators (listed by District permit numbers S-1135-119, S-1135-122, S-1135-123, and S-1135-115) simultaneously with the firing of the MSCP turbines unless one or more of the MSCP turbines is shutdown: Andersen-Goodwin Lease: S-1135-119, S-1135-122, S-1135-123 and Neely Lease: S-1135-115 [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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92. MSCC shall maintain a record of the date(s), time(s), and duration(s) of the shutdown of any of the above mentioned steam generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
93. Aera Energy LLC shall not lease or modify the permit conditions for any of the above generators for use in the Midway Sunset Oil field, unless creditable emissions reductions (as defined in 40 C.F.R. 52.21), at a ratio of at least 1:1, are provided for emissions from those generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
94. Aera Energy LLC shall not modify any of the District Permit to Operate numbers. If any of the above steam generators are issued new Permit to Operate numbers by the District, Aera Energy LLC shall notify the U.S. EPA in writing of this action and shall make such notification upon issuance of a new Permit to Operate number. This letter shall include the original District Permit to Operate number(s) of the subject generator(s) and a copy of the new Permit to Operate issued by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
95. Aera Energy LLC shall notify the U.S. EPA in writing of the intention to sell, or potential sale, of any of the above generators and shall make such notification prior to the District's final action of the re-permitting process associated with the sale of a generators. This letter shall include the following: a.) The subject steam generator as identified by its District Permit to Operate number; b.) The name of the buyer (as identified by the company name) of the steam generator; and c.) An estimated date of the final action of the re-permitting process by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
96. The allowable incidental taking (killing, harming, or harassment) of San Joaquin kit foxes, blunt-nosed leopard lizards, and giant kangaroo rats is confined to the proposed cogeneration plant site one half mile radius around this site (on lands owned or leased by Aera Energy LLC), and associated subject cogeneration plant facilities (including pipelines, transmission lines, temporary equipment stockpiling areas, and access roads) as discussed in the project Application for Certification report (Sun Cogeneration Company and Southern Sierra Energy Company 1985). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
97. MSCC is required to implement the "Agreement on Conditions for Mitigation of the Biological Impacts of the Midway-Sunset Project" as required by the U.S. Fish and Wildlife Service (USFWS) (Memorandum dated March 16, 1987 from the USFWS to the US EPA). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
98. Any endangered species found dead should be turned in to the California Department of Fish and Game for Analysis. MSCC must also report this event to the USFWS. The USFWS may recommend amendment to the existing project actions pending results of the analysis. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
99. All correspondence as required by this permit shall be forwarded to: 1.) Director, Air Division (Attn: Air-3) EPA Region IX 75 Hawthorne Street San Francisco, CA 94105-3901 Tel: (415) 744-1291 Fax: (415) 744-1076; 2.) Chief, Stationary Source Division, California Air Resource Board P.O. Box 2815 Sacramento, CA 95812; and 3.) Air Pollution Control Officer, San Joaquin Valley Unified APCD 2700 M Street, Suite 275 Bakersfield, CA 93301-2370. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
100. Aera Energy LLC is the legal owner of the subject steam generators and of the leases on which the steam generators are located. MSCC is the legal owner of the gas turbine cogeneration facility. MSCC is jointly owned by Sun Cogeneration Limited Partnership (Sun Cogen LP) and San Joaquin Energy Company. Sun Cogen LP is managed and controlled by a wholly owned subsidiary of Aera Energy LLC. (See Condition 104) [PSD SJ-87-01] 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-1135-226-29

EXPIRATION DATE: 05/31/2021

SECTION: 17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

NOMINALLY RATED 78.2 MW COGENERATION UNIT C WITH GE MODEL G7111E FRAME 7E GAS TURBINE ENGINE WITH DRY LOW NOX COMBUSTORS, SELECTIVE CATALYTIC REDUCTION (SCR), AND UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG)

PERMIT UNIT REQUIREMENTS

1. CTG exhaust after the SCR unit shall be equipped with continuously recording emissions monitors dedicated to this unit for NOx, CO, and O2. Continuous emissions monitors shall meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
2. CTG shall be equipped with a continuously recording emission monitor preceding the SCR module measuring NOx concentration for the purposes of calculating ammonia slip. Permittee shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours). The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-control. If the analyzer is out-of-control, the permittee shall take appropriate corrective action and then repeat the CD check. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
3. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NOx and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Ammonia shall be injected whenever the selective catalytic reduction system catalyst temperature exceeds the minimum ammonia injection temperature recommended by the manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Gas turbine engine shall be equipped with fuel consumption monitor recorder accurate to +/- 3%. [District Rule 2201] Federally Enforceable Through Title V Permit
8. CEM for NOx (as NO2) and CO shall conform to Rule 1080 specifications. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit
9. HRSG exhaust stack shall be equipped with permanent stack sampling provisions adequate to facilitate testing consistent with EPA test methods. [District Rule 2201], Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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10. Flue gas ducting from engine to HRSG shall have no provisions for introduction of dilution air. [District Rule 1110] Federally Enforceable Through Title V Permit
11. Lube oil cooler/accumulation vent shall be equipped with control device(s) approved by the APCO sufficient to prevent emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Lube oil cooler/accumulator vent(s) shall not have detectable emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Natural gas sulfur content shall not exceed 0.31 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All CEM's shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60 Appendix B. [District Rule 1080] Federally Enforceable Through Title V Permit
15. Quarterly CEM reports shall be submitted to the APCO according to EPA regulations as specified in 40 CFR 60 Appendix B. [District Rules 1080 and 4001] Federally Enforceable Through Title V Permit
16. Audits of all monitors shall be conducted by independent laboratory in accordance with EPA guidelines and witnessed by District. Reports shall be submitted to District within 60 days of audits. [District Rule 1080] Federally Enforceable Through Title V Permit
17. All notification, recordkeeping, performance tests, reporting requirements, and compliance testing requirements of Rule 4001 NSPS shall be satisfied. [District Rule 4001] Federally Enforceable Through Title V Permit
18. Operational records including fuel type, fuel characteristics, and consumption shall be maintained and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
19. Accurate records of NO_x (as NO₂) and CO flue gas concentration corrected to 15% O₂ and fuel gas sulfur content shall be maintained and shall be reported as described in Rule 1080 upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
20. Emission rates shall not exceed the following: PM₁₀: 0.010 lb/MMBtu, SO_x (as SO₂): 0.001 lb/MMBtu, NO_x (as NO₂): 0.018 lb/MMBtu, VOC: 0.009 lb/MMBtu, CO: 0.057 lb/MMBtu, and ammonia - 10 ppmvd @ 15%O₂. [District Rules 2201 and 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
21. Permittee shall comply with the following emission limit at all times except during periods of start-up, shutdown, or reduced load as defined in Rule 4703: NO_x (as NO₂): 5.0 ppmv, and CO: 25 ppmv, dry @ 15% O₂ corrected to ISO conditions. [District Rule 4703, 40 CFR 60.332(a)(1), and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
22. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
24. Gas turbine reduced load period is that period not exceeding one hour in duration during which the unit is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
25. Compliance with NO_x, CO and ammonia emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory annually. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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27. The following test methods shall be used PM10: EPA method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA method 10 (or 10B) or CARB Method 100, O2: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
28. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 = $((a-(bxc/1,000,000)) \times 1,000,000 / b) \times d$, where a = ammonia injection rate(lb/hr)/17(lb/lb. mol), b = dry exhaust gas flow rate (lb/hr)/(29(lb/lb. mol), c = change in measured NOx concentration ppmv at 15% O2 across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. [District Rule 4102]
29. Official test results and field data shall be submitted within 60 days after collection. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
30. Combined annual emissions from units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, S-1135-226 shall not exceed any of the following: PM10 - 262,360 lb per rolling 12-month period, SOx (as SO2) - 24,200 lb per rolling 12-month period, NOx (as NO2) - 464,170 lb per rolling 12-month period, VOC - 236,520 lb per rolling 12-month period, or CO - 1,443,101 lb per rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions, based on a rolling 12-month average, for each unit. For units equipped with continuous emissions monitors (CEMs), CEM data may be used in place of calculated emissions. If CEM shows a violation, CEM data shall be used. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
32. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District Rule 2201] Federally Enforceable Through Title V Permit
33. When three gas turbine engines S-1135-224, '-225, and '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
34. When up to two gas turbine engines S-1135-224, '-225, or '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 may be operated. [District Rule 2201] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of operational status of units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, and S-1135-226 on a daily basis. [District Rule 2201] Federally Enforceable Through Title V Permit
36. 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 4703] Federally Enforceable Through Title V Permit
37. CEC emission rates, except during periods of startup, shutdown, or reduced load shall not exceed PM10: 9.98 lb/hr, SOx (as SO2): 0.92 lb/hr, NOx (as NO2): 17.66 lb/hr, VOC: 9.00 lb/hr, and CO: 54.91 lb/hr. [District Rules 2080 and 4703 and 40 CFR 60] Federally Enforceable Through Title V Permit
38. For CEC purposes, emissions during periods of startup and shutdown shall not exceed the following values average over 2 hours: NOx: 140 lb/hr, and CO: 94 lb/hr. [District Rule 2080] Federally Enforceable Through Title V Permit
39. The CEC shall be notified of any changes to the combined annual emission limits for steam generators S-1135-115, -119, -122, and -123, and cogeneration units S-1135-224, -225, and -226, only to the extent to be informed of their impact on the Midway-Sunset Cogeneration Facility. [District Rule 2080] Federally Enforceable Through Title V Permit
40. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [Kern County Rule 108 and District Rule 1080] 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.

41. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [Kern County Rule 108, District Rules 1080 and 4703, and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
42. The permittee shall maintain hourly average records of NOx and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by the CO CEM data and the VOC/CO relationship determined by annual CO and VOC source tests of NOx, CO, and ammonia emission concentrations (ppmv @ 15% O2), and hourly, daily, and twelve month rolling. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit
44. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit
45. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 1081] Federally Enforceable Through Title V Permit
46. Unit shall be fired on a natural gas which has a sulfur content of less than or equal to 0.017% by weight. [District Rule 4801, 40 CFR 60.333(a), 40 CFR 60.333(b), 40 CFR 60.334(c)(2), Kern County Rule 407] Federally Enforceable Through Title V Permit
47. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
48. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using method(s) specified on this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
49. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246, or double GC for H2S and mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
50. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
51. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(a)(2)] Federally Enforceable Through Title V Permit
52. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [District Rule 4703, 40 CFR 60.332(a), and 40 CFR 60.332(b)] Federally Enforceable Through Title V Permit
53. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [District Rule 4703, 40 CFR 60.332(a), and 40 CFR 60.332(b)] Federally Enforceable Through Title V Permit
54. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [District Rule 4703, 40 CFR 60.334(a), 40 CFR 60.334(b), and 40 CFR 60.334(c)] Federally Enforceable Through Title V Permit
55. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [District Rule 4703, 40 CFR 60.332(a), and 40 CFR 60.332(b)] 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.

56. This unit is a simple combustion turbine as defined in 40 CFR 72.6 (b)(1) and shall not be subject to the requirements of 40 CFR Part 72. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
57. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rules 404, 108, and 108.1. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: Kern County Rule 407; District Rules 4801, 4201, 1081, and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332 (c) and (d); 60.334 (b), (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
60. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: District Rules 1080, 7.3 and 4703, 6.2.2; 40 CFR 60.332(a), (b); 60.333(a) and (b), 60.334(a), (b), and (c)(1); 60.335(a), (b) and (c)(2). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
61. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
62. The Permittee (MSCC) must notify EPA by telephone, facsimile, or electronic mail transmission within two (2) working days following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit stated in any conditions where PSD is cited as the basis of the condition. In addition, the Permittee (MSCC) must notify EPA in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in any conditions where PSD is cited as the basis of the condition, and the methods utilized to mitigate emissions and restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause, except as provided for in the conditions where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
63. A malfunction means a sudden and unavoidable breakdown of equipment or of a process beyond the reasonable control of the source. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
64. Emissions in excess of the limits specified in any conditions where PSD is cited as the basis of the condition shall constitute a violation of this permit and may be the subject of enforcement proceedings. [PSD SJ-87-01] 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.

65. Affirmative defense: In the context of an enforcement proceeding, emissions which are below the limits set forth in any condition where PSD is cited as the basis of the condition shall not be subject to penalty if the Permittee (MSCC) retains properly signed, contemporaneous operating logs or other relevant evidence and can demonstrate all of the following: i.) A malfunction caused the emissions in excess of the limits in any condition where PSD is cited as the basis of the condition; ii.) The permitted facility, including the air pollution control equipment and process equipment, was being properly operated at the time of the malfunction; iii.) Preventative maintenance was regularly performed in a manner consistent with good practice for minimizing emissions; iv.) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; v.) During the period of the malfunction, the permittee (MSCC) took all reasonable steps to minimize the amount and duration of emissions (including any bypass) that exceeded the emission limits provided in any condition where PSD is cited as the basis of the condition. Reasonable steps to minimize emissions could include, but are not limited to, reducing production to the lowest level practicable, reducing the material feed that results in the increased emissions, and switching to alternative, less polluting fuels. Where repairs were required, repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as possible; and vi.) The permittee (MSCC) complied with the malfunction reporting requirements as specified in the condition where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
66. All emissions, including those associated with a malfunction which may be eligible for an affirmative defense, must be included in all emissions calculations and demonstrations of compliance with mass emission limits (e.g., daily, monthly, and annual emission limits) specified in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
67. This provision is in addition to any emergency or malfunction provision contained in any applicable requirement or elsewhere in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
68. The EPA Regional Administrator, and/or their authorized representative, upon the presentation of credential, must be permitted: (1) to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of the PSD permit SJ-87-01; and (2) at reasonable times to have access to and copy any records required to be kept under the terms and conditions of PSD permit SJ 87-01; and (3) to inspect any equipment, operation, or method required in the PSD permit SJ-87-01; and (4) to sample emissions from source(s). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
69. In the event of any changes in control or ownership of facilities to be constructed or modified, this permit shall be binding on all subsequent owners and operators. The Permittee (MSCC) shall notify the succeeding owner and operator of the existence of the PSD permit SJ-87-01 and its conditions by letter, a copy of which shall be forwarded to the EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
70. The provisions of the PSD permit SJ-87-01 are severable, and, if any provisions of the permit is held invalid, the remainder of the permit must not be affected thereby. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
71. The permittee (MSCC) must construct and operate the proposed power plant in compliance with all other applicable provisions of 40 CFR Parts 52, 60, 62, and 63 and all other applicable Federal, State, and local air quality regulations. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
72. On or before the date of startup (as defined in 40 C.F.R. 60.2) of the Western Midway Sunset Cogeneration Project (WMSCP; PSD Permit No. SJ-00-01) and thereafter the Permittee (MSCC) must install, continuously operate, and maintain the Dry Low NOx (DLN) combustion systems to reduce NOx emissions from each of its three turbines. The Permittee (MSCC) shall also use proper combustion techniques for the control of CO emissions from the equipment at MSCP. [PSD SJ-87-01] 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.

73. Within 60 days after achieving the base load, but no later than 180 days after initial startup of all three modified turbines (as defined in 40 C.F.R. 60.2), and annually thereafter (at about the anniversary of the initial performance test), the Permittee (MSCC) must conduct performance tests (as described in 40 C.F.R. 60.8) for NO_x and CO on the exhaust stack gases. The Permittee (MSCC) must furnish the District, the California Air Resources Board (CARB), and the EPA a written report of the results of such tests. Upon written request from the Permittee (MSCC), and adequate justification, EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
74. Performance tests for the emissions of NO_x and CO must be conducted and the results reported in accordance with the test methods set forth in 40 C.F.R. 60.8 and 40 C.F.R. 60, Appendix A. The following test methods must be used: a.) Performance tests for the emissions of NO_x must be conducted using EPA Method 1-4 and 7E. b.) Performance tests for the emissions of CO must be conducted using the EPA Methods 1-4 and 10. In lieu of the above-mentioned test methods, equivalent methods may be used with prior written approval from EPA. The Permittee (MSCC) must notify EPA in writing at least 30 days prior to such tests to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
75. For performance test purposes, sampling ports, platforms, and access must be provided by the Permittee on the emission unit exhaust system in accordance with 40 C.F.R. 60.8(e). [PSD SJ 87-01] Federally Enforceable Through Title V Permit
76. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of CO into the atmosphere in excess of the following emission limits per turbine: The more stringent of 25 ppmvd @ 15% O₂ or 55 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
77. This condition applies prior to the startup of the WMSCP: On and after the date of start up any of the three turbines at MSCP must not discharge (per turbine, and based on 3-hour rolling average) into the atmosphere CO in excess of the following of any of: 1.) The more stringent of 52.0 ppmvd @ 15% O₂ or 94 pounds for loads greater than or equal to 75%. 2.) The more stringent of 62.0 ppmvd @ 15% O₂ or 94 pounds for loads greater than or equal to 35% but less than 75%. 3.) 94 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
78. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of NO_x into the atmosphere in excess of the following emission limits per turbine: The more stringent of 10 ppmvd @ 15% O₂ or 36.1 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
79. This condition applies prior to the startup of the WMSCP: On and after the date of start-up of any of the three turbines, MSCC must not discharge (per turbine, based on 3-hour rolling average) into the atmosphere NO_x (as NO₂) in excess of the following: 1.) The more stringent of 25.0 ppmvd @ 15% O₂ or 85.0 pounds per hour for loads greater than or equal to 75%; 2.) The more stringent of 42.0 ppmvd @ 15% O₂ or 85 pounds per hour for loads greater than or equal to 35% but less than 75%; 3.) 85 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
80. The hourly (3-hour averaging) emissions must not exceed: 1.) 94 pounds of CO and 85 pounds of NO_x; 2.) All CEMs must be operating during startups and shut downs; 3.) The time, date and duration of each startup and shutdown event must be recorded. The records must include the lbs/hour calculations based on the CEM data. These records must be kept for five years following the date of such events. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
81. Prior to the date of startup and thereafter, the Permittee (MSCC) must install, maintain and operate the following continuous monitoring systems (CEMs) in the exhaust stacks: a.) Continuous monitoring systems to measure stack gas NO_x, CO and O₂ concentrations. The systems must meet EPA monitoring performance specification (40 C.F.R. 60.13 and 40 C.F.R. 60, Appendix B, Performance Specifications 2, 3 and 4); b.) A continuous monitoring system to measure stack gas and natural gas volumetric flow rates. The stack gas flow measurement system must meet EPA Performance Specifications for (40 C.F.R. Part 52, Appendix E). [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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82. The Permittee (MSCC) must maintain a file of all measurements, including continuous monitoring systems evaluations; all continuous monitoring systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; performance and all other information required by 40 C.F.R. 60 Appendices A-B recorded in a permanent form suitable for inspection. The file must be retained for five years following the date of such measurements, maintenance, reports and records. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
83. The Permittee (MSCC) must notify EPA of the date on which demonstration for the continuous monitoring system performance commences (40 C.F.R. 60.13). This date must be no later than 60 days after full load operation but not later than 180 days after startup. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
84. The Permittee (MSCC) must submit a written report of all excess emissions to EPA for every calendar quarter. The quarterly report must include the following: a.) The magnitude of the excess emissions computed in accordance with 40 C.F.R. 60.13(h), any conversion factors used, and the date and time of commencement and compilation of each time period of excess emissions; b.) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of any equipment. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted must also be reported; c.) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments; d.) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information must be stated in the report; and e.) Excess emissions must be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM exceeds the maximum emission limits set forth in the condition with a CO emission limit, where PSD is cited as the basis of the condition or any 3-hour period during which the average emissions of NO_x exceed the maximum emission limits set forth in the condition with a NO_x emission limit, where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
85. Excess emissions indicated by the CEM system must be considered violations of the applicable emission limit for the purpose of this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
86. The quality assurance project plan used by the Permittee (MSCC) for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 C.F.R. Part 60, Appendix F, must be available upon request to EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
87. The Permittee (MSCC) must keep a monthly record of all fuel uses. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
88. The proposed power plant is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 C.F.R. 60). The owner or operator must meet all applicable requirements of 40 C.F.R. 60 Subparts A and GG of this regulation. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
89. All three turbines will fire natural gas only. The Permittee (MSCC) must only combust pipeline quality natural gas with sulfur content (as S) below 0.75 grains per 100 dry standard cubic feet (dscf). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
90. MSCC shall have legal and operational responsibility and control of all air pollutant emitting activities of the MSCP. This responsibility shall include, but shall not be limited to the following: 1.) Operating and maintaining the project to comply with all federal, state, and local air pollution laws, regulations, orders, and other requirements; 2.) Ensuring the emissions offsets, tradeoffs, or other emission reductions required for this project under permits issued by the U.S. EPA, the District, and/or the California Energy Commission are obtained as required; or 3.) Any violations of any air pollution requirements are the legal responsibility of MSCC, in addition to any other legal responsible entity. Any proposed change to this condition shall require prior written concurrence of the US EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
91. In accordance with the emissions offset plan proposed by the applicant for the District (dated November 12, 1987) and the emissions offset plan for the U.S. EPA (dated July 21, 1987), Aera Energy LLC must not operate the following four steam generators (listed by District permit numbers S-1135-119, S-1135-122, S-1135-123, and S-1135-115) simultaneously with the firing of the MSCP turbines unless one or more of the MSCP turbines is shutdown: Andersen-Goodwin Lease: S-1135-119, S-1135-122, S-1135-123 and Neely Lease: S-1135-115 [PSD SJ-87-01] 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.

92. MSCC shall maintain a record of the date(s), time(s), and duration(s) of the shutdown of any of the above mentioned steam generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
93. Aera Energy LLC shall not lease or modify the permit conditions for any of the above generators for use in the Midway Sunset Oil field, unless creditable emissions reductions (as defined in 40 C.F.R. 52.21), at a ratio of at least 1:1, are provided for emissions from those generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
94. Aera Energy LLC shall not modify any of the District Permit to Operate numbers. If any of the above steam generators are issued new Permit to Operate numbers by the District, Aera Energy LLC shall notify the U.S. EPA in writing of this action and shall make such notification upon issuance of a new Permit to Operate number. This letter shall include the original District Permit to Operate number(s) of the subject generator(s) and a copy of the new Permit to Operate issued by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
95. Aera Energy LLC shall notify the U.S. EPA in writing of the intention to sell, or potential sale, of any of the above generators and shall make such notification prior to the District's final action of the re-permitting process associated with the sale of a generators. This letter shall include the following: a.) The subject steam generator as identified by its District Permit to Operate number; b.) The name of the buyer (as identified by the company name) of the steam generator; and c.) An estimated date of the final action of the re-permitting process by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
96. The allowable incidental taking (killing, harming, or harassment) of San Joaquin kit foxes, blunt-nosed leopard lizards, and giant kangaroo rats is confined to the proposed cogeneration plant site one half mile radius around this site (on lands owned or leased by Aera Energy LLC), and associated subject cogeneration plant facilities (including pipelines, transmission lines, temporary equipment stockpiling areas, and access roads) as discussed in the project Application for Certification report (Sun Cogeneration Company and Southern Sierra Energy Company 1985). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
97. MSCC is required to implement the "Agreement on Conditions for Mitigation of the Biological Impacts of the Midway-Sunset Project" as required by the U.S. Fish and Wildlife Service (USFWS) (Memorandum dated March 16, 1987 from the USFWS to the US EPA). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
98. Any endangered species found dead should be turned in to the California Department of Fish and Game for Analysis. MSCC must also report this event to the USFWS. The USFWS may recommend amendment to the existing project actions pending results of the analysis. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
99. All correspondence as required by this permit shall be forwarded to: 1.) Director, Air Division (Attn: Air-3) EPA Region IX 75 Hawthorne Street San Francisco, CA 94105-3901 Tel: (415) 744-1291 Fax: (415) 744-1076; 2.) Chief, Stationary Source Division, California Air Resource Board P.O. Box 2815 Sacramento, CA 95812; and 3.) Air Pollution Control Officer, San Joaquin Valley Unified APCD 2700 M Street, Suite 275 Bakersfield, CA 93301-2370. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
100. Aera Energy LLC is the legal owner of the subject steam generators and of the leases on which the steam generators are located. MSCC is the legal owner of the gas turbine cogeneration facility. MSCC is jointly owned by Sun Cogeneration Limited Partnership (Sun Cogen LP) and San Joaquin Energy Company. Sun Cogen LP is managed and controlled by a wholly owned subsidiary of Aera Energy LLC. (See Condition 104) [PSD SJ-87-01] 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-1135-230-5

EXPIRATION DATE: 05/31/2021

SECTION: 17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1 MISCELLANEOUS STEAM DUMPING-ROCK BED MUFFLER OPERATION FOR MIDWAY SUNSET COGENERATION BLOWDOWN

PERMIT UNIT REQUIREMENTS

1. Unit shall receive steam only from cogeneration units S-1135-224, '-225, & '-226. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Steam pit shall not be used for more than 6 hours in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Only treated water shall be used as cogenerators steam generators feed water. [District Rule 2080] Federally Enforceable Through Title V Permit
4. This equipment shall not be used on any day when any of the 52 steam generators and heater treaters curtailed to provide cogeneration project offsets are operated unless these units are operated in accordance with District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall keep accurate daily records indicating hours of steam pit usage. Records shall be kept, maintained, and made readily available to District staff upon request. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit
6. H2S emissions shall not exceed 19 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission sampling limits for the following shall not exceed any of the following: PM-10 - 8.40 lb/hr, SOx (as SO2) - 42.24 lb/hr, or VOC - 1.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-230-5 : Jan 25 2022 2:59PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-231-7

EXPIRATION DATE: 05/31/2021

SECTION: 17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

165 HP DIESEL-FIRED EMERGENCY I.C. ENGINE POWERING A FIREWATER PUMP

PERMIT UNIT REQUIREMENTS

1. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
4. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
5. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. Permittee may utilize an oil analysis program, as specified in 40 CFR 63.6625(i), to extend the oil change requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
6. The engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
7. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
8. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
9. This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per year. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [17 CCR 93115] Federally Enforceable Through Title V Permit
11. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, and the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. On a monthly basis, the permittee shall calculate and record the hours of operation for the rolling 12 month period. The hours of operation shall be calculated by summing the hours of operation from the previous 12 months. [District Rule 2520] Federally Enforceable Through Title V Permit
13. 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 Rule 4702 and 17 CCR 93115] 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-1135-235-5

EXPIRATION DATE: 05/31/2021

SECTION: 17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

2,520 BHP DIESEL FIRED CATERPILLAR MODEL #3516STD EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. Engine shall be equipped with a turbocharger. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Engine shall be equipped with an aftercooler or intercooler. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The engine shall be operated with the timing retarded four degrees from the manufacturer's standard recommended timing. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The sulfur content of the diesel fuel used shall not exceed 0.0015% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 gr/dscf in concentration at the point of discharge. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on CARB regulated diesel fuel, with a supplier certified sulfur content less than 0.0015% by weight, the operator shall maintain copies of all fuel invoices and supplier certifications. [District Rule 2520] Federally Enforceable Through Title V Permit
8. If the IC engine is not fired on CARB regulated diesel fuel, with a supplier certified sulfur content less than 0.0015% by weight, then the owner or operator shall determine the sulfur content of each delivery of diesel fuel being fired in the IC engine. The sulfur content shall be determined using ASTM method D 2880-71. [District Rule 2520] Federally Enforceable Through Title V Permit
9. If the IC engine is not fired on CARB regulated diesel fuel and the sulfur content of the fuel is determined using the method specified on this permit, the records of fuel sulfur content testing results shall be kept, maintained, and made available to the district upon request. [District Rule 2520] Federally Enforceable Through Title V Permit
10. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
11. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
12. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. Permittee may utilize an oil analysis program, as specified in 40 CFR 63.6625(i), to extend the oil change requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. The engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
14. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
15. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
16. This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 6 hours per year. [District Rules 2201, 4701, and 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
17. On a monthly basis, the permittee shall calculate and record the hours of operation for the rolling 12 month period. The hours of operation shall be calculated by summing the hours of operation from the previous 12 months. [District Rule 2520] Federally Enforceable Through Title V Permit
18. The permittee shall maintain records of hours of non-emergency operation and of the sulfur content of the diesel fuel used. Such records shall be made available for District inspection upon request. [District Rules 1070 and 2520] 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-1135-266-22

EXPIRATION DATE: 05/31/2021

SECTION: SE24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR STRUTHERS STEAM GENERATOR, WITH A COEN QLN-ULN BURNER, O2 CONTROLLER, FLUE GAS RECIRCULATION AND SO2 SCRUBBER LISTED ON S-1135-26 (METSON 48)

PERMIT UNIT REQUIREMENTS

1. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992, and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
2. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
3. This unit is located west of interstate 5 in Kern County. Therefore, the requirements of District Rule 4351 (Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
4. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
5. Whenever non-PUC/FERC gas is burned in this unit, the scrubber shall operate and shall reduce SO2 emissions by 95% by weight, or shall limit exhaust SO2 to less than or equal to 9 ppmv corrected to 3.0% oxygen. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
6. The total annual emissions from S-1135-26, S-1135-27, S-1135-28, S-1135-266 and S-1547-1089 shall not exceed SOx: 20,951 lb per rolling 12-month period or PM10: 32,222 lb per rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
7. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas/vapor recovery gas combusted in the unit shall be installed, utilized and maintained. Use of an alternate system consisting of calibrated orifice plates, transmitters, and a programmable logic controller (PLC) may be used to meet this requirement. [40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
8. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.001 lb/MMBtu, SOx (as SO2): 0.0016 lb/MMBtu, VOC: 0.0027 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, and 4306] Federally Enforceable Through Title V Permit
9. Emission rates shall not exceed any of the following: PM10: 1.5 lb/day, SOx (as SO2): 2.4 lb/day, VOC: 4.1 lb/day, NOx (as NO2): 54.0 lb/day or 9,855 lb per rolling 12-month period, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
11. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit
12. The permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [40 CFR 60.48c(g)] 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-1135-267-20

EXPIRATION DATE: 05/31/2021

SECTION: NE35 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR STRUTHERS GAS-FIRED STEAM GENERATOR (#49) WITH A COEN MODEL QLN-ULN BURNER WITH FLUE GAS RECIRCULATION (FGR) (KENDON LEASE)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
8. This unit is located west of interstate 5 in Kern County. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
9. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.001 lb/MMBtu, SOx (as SO2): 0.0016 lb/MMBtu, VOC: 0.0027 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, and 4306] Federally Enforceable Through Title V Permit
11. Emission rates shall not exceed any of the following: PM10: 1.5 lb/day, SOx (as SO2): 2.4 lb/day, VOC: 4.1 lb/day, NOx (as NO2): 54.0 lb/day or 9,855 lb per rolling 12-month period, or CO: 55.5 lb/day or 16,425 lb per rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas/vapor recovery gas combusted in the unit shall be installed, utilized and maintained. Use of an alternate system consisting of calibrated orifice plates, transmitters, and a programmable logic controller (PLC) may be used to meet this requirement. [District Rule 2201 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
13. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
14. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0 [District Rule 2520] Federally Enforceable Through Title V Permit
15. The permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [40 CFR 60.48c(g)] 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-1135-270-15

EXPIRATION DATE: 05/31/2021

SECTION: NW21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED ROOF OIL TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-149
(ANDERSON/GOODWIN LEASE)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Tank shall be vented only to vapor control system listed on S-1135-149. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 3.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Maximum VOC content of hydrocarbons in tank vapor shall not exceed 20% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.5 psia under all storage conditions. [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.

13. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
14. This unit is subject to the AG Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-281-19

EXPIRATION DATE: 05/31/2021

SECTION: 16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF SUMP REPLACEMENT TANK WITH VAPOR CONTROL SYSTEM SHARED WITH S-1135-284, -285, -286, -287, -328, '-329, '-330, '-331, '-332, '-333, '-334, AND '-335

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Vapor control system shall discharge to unit S-1135-128. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All associated tanks shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. All tank gauge hatches, thief hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and gas-tight (as defined in Rule 4623) except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a gas-tight (as defined in Rule 4623) condition. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compressor suction and knockout drum liquids shall be piped only to vapor-controlled tanks. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2520] Federally Enforceable Through Title V Permit
16. Operator shall monitor vapor control system compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520] Federally Enforceable Through Title V Permit
17. Tank vapor control system efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor control system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623] Federally Enforceable Through Title V Permit
18. All non-condensable hydrocarbon vapors shall be directed to the vapor control system authorized by permit S-1135-128 either directly through bypass piping, or through tank battery vapor control skid. [District Rule 2201] Federally Enforceable Through Title V Permit
19. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.45 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
20. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
21. 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
22. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
23. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 4623] Federally Enforceable Through Title V Permit
24. Permittee shall retain records of TVP and API gravity testing for District inspection upon request. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rules 4623] Federally Enforceable Through Title V Permit
25. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
26. There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
27. Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor control system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor control system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

28. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
29. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
30. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
31. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit
32. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520] Federally Enforceable Through Title V Permit
33. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit
34. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
35. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520] Federally Enforceable Through Title V Permit
36. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

37. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520] Federally Enforceable Through Title V Permit
38. Permittee shall keep accurate records of throughput, storage temperature, and TVP of liquids stored in each tank and such records shall be made readily available for District inspection at any time for a time period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit
39. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for district inspection upon request for a period of at least five years. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
40. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
41. The fugitive VOC emissions from this tank and tank vapor control system shall not exceed 3.1 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit
42. Permittee shall maintain with the permit accurate fugitive component counts for tank and the tank vapor control system and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production Screening Value Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
43. 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 2520] 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-1135-283-9

EXPIRATION DATE: 05/31/2021

SECTION: NW17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY OPERATION (TEOR) SERVING 90 STEAM ENHANCED WELLS WITH CLOSED CASING VENTS (ANDERSON LEASE)

PERMIT UNIT REQUIREMENTS

1. All valves, fittings and connectors serving closed well vents shall be constructed and maintained in a leak free condition except during periods of actual service and repair. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Total fugitive emission of volatile organic compounds (VOC) from entire operation shall not exceed 16.4 lbm/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Wellhead (polishing rod/stuffing box) fugitive emissions from new wells shall not exceed 0.00778 lbm VOC/well/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts for well vent vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c(Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (Amended June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
6. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
7. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-283-9 : Jan 25 2022 3:00PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-284-17

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF RUN TANK #5, WITH VAPOR CONTROL SYSTEM LISTED ON S-1135-281

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All tank gauge hatches, thief hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and gas-tight (as defined in Rule 4623) except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a gas-tight (as defined in Rule 4623) condition. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.45 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. 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
17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 4623] Federally Enforceable Through Title V Permit
18. Permittee shall retain records of TVP and API gravity testing for District inspection upon request. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rules 4623] Federally Enforceable Through Title V Permit
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
20. There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor control system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor control system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit
26. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520] Federally Enforceable Through Title V Permit
27. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit
28. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
29. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520] Federally Enforceable Through Title V Permit
30. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520] Federally Enforceable Through Title V Permit
31. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520] Federally Enforceable Through Title V Permit
32. Permittee shall keep accurate records of throughput, storage temperature, and TVP of liquids stored in each tank and such records shall be made readily available for District inspection at any time for a time period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit
33. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for district inspection upon request for a period of at least five years. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
34. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
35. The fugitive VOC emissions from this tank shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

36. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production Screening Value Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
37. 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 2520] Federally Enforceable Through Title V Permit

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

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-285-19

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF LACT TANK #6 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-281

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All tank gauge hatches, thief hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and gas-tight (as defined in Rule 4623) except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a gas-tight (as defined in Rule 4623) condition. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.45 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. 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
17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 4623] Federally Enforceable Through Title V Permit
18. Permittee shall retain records of TVP and API gravity testing for District inspection upon request. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rules 4623] Federally Enforceable Through Title V Permit
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
20. There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor control system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor control system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit
26. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520] Federally Enforceable Through Title V Permit
27. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit
28. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
29. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520] Federally Enforceable Through Title V Permit
30. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520] Federally Enforceable Through Title V Permit
31. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520] Federally Enforceable Through Title V Permit
32. Permittee shall keep accurate records of throughput, storage temperature, and TVP of liquids stored in each tank and such records shall be made readily available for District inspection at any time for a time period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit
33. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for district inspection upon request for a period of at least five years. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
34. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
35. The fugitive VOC emissions from this tank shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

36. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production Screening Value Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
37. 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 2520] 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-1135-286-19

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF LACT TANK #7 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-281

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All tank gauge hatches, thief hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and gas-tight (as defined in Rule 4623) except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a gas-tight (as defined in Rule 4623) condition. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.45 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. 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
17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 4623] Federally Enforceable Through Title V Permit
18. Permittee shall retain records of TVP and API gravity testing for District inspection upon request. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rules 4623] Federally Enforceable Through Title V Permit
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
20. There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor control system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor control system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit
26. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520] Federally Enforceable Through Title V Permit
27. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit
28. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
29. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520] Federally Enforceable Through Title V Permit
30. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520] Federally Enforceable Through Title V Permit
31. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520] Federally Enforceable Through Title V Permit
32. Permittee shall keep accurate records of throughput, storage temperature, and TVP of liquids stored in each tank and such records shall be made readily available for District inspection at any time for a time period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit
33. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for district inspection upon request for a period of at least five years. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
34. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
35. The fugitive VOC emissions from this tank shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

36. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production Screening Value Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
37. 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 2520] 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-1135-287-19

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF LACT TANK #8 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-281

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All tank gauge hatches, thief hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and gas-tight (as defined in Rule 4623) except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a gas-tight (as defined in Rule 4623) condition. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.45 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. 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
17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 4623] Federally Enforceable Through Title V Permit
18. Permittee shall retain records of TVP and API gravity testing for District inspection upon request. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rules 4623] Federally Enforceable Through Title V Permit
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
20. There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor control system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor control system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit
26. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520] Federally Enforceable Through Title V Permit
27. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit
28. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
29. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520] Federally Enforceable Through Title V Permit
30. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520] Federally Enforceable Through Title V Permit
31. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520] Federally Enforceable Through Title V Permit
32. Permittee shall keep accurate records of throughput, storage temperature, and TVP of liquids stored in each tank and such records shall be made readily available for District inspection at any time for a time period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit
33. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for district inspection upon request for a period of at least five years. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
34. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
35. The fugitive VOC emissions from this tank shall not exceed 0.1 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

36. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production Screening Value Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
37. 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 2520] 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-1135-293-12

EXPIRATION DATE: 05/31/2021

SECTION: 15 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION SERVING 300 STEAM DRIVE WELLS WITH CASING VENTS TIED TO VAPOR CONTROL SYSTEM INCLUDING, THREE VAPOR CONTROL SKIDS WITH SEPARATOR(S), HEAT EXCHANGER(S), FAN(S), AND COMPRESSOR(S), WITH NON-CONDENSIBLE VAPOR PIPING SHARED WITH TEOR OPERATION S-1135-124 (EXETER LEASE) CONTROLLED BY BALANCED CASING VENT COLLECTION SYSTEM OR RE-INJECTION INTO DOGGR APPROVED DISPOSAL WELL (GLOBE LEASE)

PERMIT UNIT REQUIREMENTS

1. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
2. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of dates and well identifications where steam injection or well stimulation occurs and shall make such records available for District inspection. [District Rule 1070] Federally Enforceable Through Title V Permit
4. Volatile organic compound (VOC) emissions shall not exceed 2.32 lb/hr for casing collection fugitives and 0.33 lb/hr for polished rod fugitives. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 4401] Federally Enforceable Through Title V Permit
6. Well casing vent collection system shall also include non-condensable vapor piping from vapor control skids to re-injection skid. [District Rule 2201] Federally Enforceable Through Title V Permit
7. TEOR vapors shall be injected only in DOGGR-approved gas disposal wells and permittee shall submit a copy of the DOGGR gas disposal well approval to the District prior to injection of any TEOR gas. [District Rule 2201] Federally Enforceable Through Title V Permit
8. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system or injected into formation using DOGGR-approved disposal wells. Permittee shall cease injection of vapors and notify the District if DOGGR disposal well approval is revoked, denied, terminated, surrendered, or otherwise altered to disallow gas disposal. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-293-12 : Jan 25 2022 3:00PM - HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-299-15

EXPIRATION DATE: 05/31/2021

SECTION: NE35 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR GAS-/LPG-FIRED STEAM GENERATOR #50 WITH A COEN MODEL QLN-ULN LOW-NOX BURNER, A FLUE GAS RECIRCULATION SYSTEM AND AN OXYGEN CONTROLLER (KENDON LEASE)

PERMIT UNIT REQUIREMENTS

1. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
2. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
3. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.014 lb/MMBtu, SOx (as SO2): 0.001 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, and 4306] Federally Enforceable Through Title V Permit
4. Emission rates shall not exceed any of the following: PM10: 21.0 lb/day, SOx (as SO2): 1.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9,855 lb per rolling 12-month period, or CO: 55.5 lb/day or 16,425 lb per rolling 12-month period. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
5. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas/vapor recovery gas combusted in the unit shall be installed, utilized and maintained. Use of an alternate system consisting of calibrated orifice plates, transmitters, and a programmable logic controller (PLC) may be used to meet this requirement. [40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
6. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
7. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit
8. The permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [40 CFR 60.48c(g)] 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-1135-301-16

EXPIRATION DATE: 05/31/2021

SECTION: NW21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

6,700 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-149 (ANDERSON/GOODWIN LEASE)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 2.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Tank shall be vented only to vapor control listed on S-1135-149. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 4.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Maximum VOC content of hydrocarbons in tank vapor shall not exceed 20% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
14. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
15. This unit is subject to the AG Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-302-16

EXPIRATION DATE: 05/31/2021

SECTION: SE22 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (#5) WITH A COEN MODEL QLN-ULN ULTRA LOW NOX BURNER WITH FLUE GAS RECIRCULATION (FGR) (BUENA FE LEASE)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
8. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.0006 lb/MMBtu, VOC: 0.0028 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, and 4306] Federally Enforceable Through Title V Permit
10. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 0.9 lb/day, VOC: 4.2 lb/day, NOx (as NO2): 54.0 lb/day or 9,855 lb per rolling 12-month period, or CO: 55.5 lb/day or 16,425 lb per rolling 12-month period. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
11. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas/vapor recovery gas combusted in the unit shall be installed, utilized and maintained. Use of an alternate system consisting of calibrated orifice plates, transmitters, and a programmable logic controller (PLC) may be used to meet this requirement. [40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
13. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit
14. The permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [40 CFR 60.48c(g)] 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-1135-305-15

EXPIRATION DATE: 05/31/2021

SECTION: NW36 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NAT GAS-FIRED STEAM GENERATOR # 52, WITH A COEN QLN-ULN LOW NOX BURNER, WITH FLUE GAS RECIRCULATION, (PRU LEASE)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
8. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.0006 lb/MMBtu, VOC: 0.0028 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, and 4306] Federally Enforceable Through Title V Permit
10. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 0.9 lb/day, VOC: 4.2 lb/day, NOx (as NO2): 54.0 lb/day or 9,855 lb per rolling 12-month period, or CO: 55.5 lb/day or 16,425 lb per rolling 12-month period. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
11. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas/vapor recovery gas combusted in the unit shall be installed, utilized and maintained. Use of an alternate system consisting of calibrated orifice plates, transmitters, and a programmable logic controller (PLC) may be used to meet this requirement. [40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
13. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit
14. The permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [40 CFR 60.48c(g)] 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-1135-322-6

EXPIRATION DATE: 05/31/2021

SECTION: SW24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF WASH TANK T-101, WITH VAPOR RECOVERY (LISTED IN S-1135-70) - METSON LEASE TANK BATTERY

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall vent to vapor recovery system S-1135-70. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 0.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
5. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
10. The Standard Metson Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-70 apply to the equipment operating under this permit. Deviations from a Standard Metson Condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-322-6 : Jan 25 2022 3:00PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-323-7

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-149 - ANDERSON GOODWIN LEASE

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Tank shall vent only to the vapor control skid inlet in permit S-1135-129. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 0.26 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-323-7 : Jan 25 2022 3:00PM -- HONGM

12. This unit has a storage capacity less than 420,000 gallons (1,589.874 cubic meters) and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
13. This unit is subject to the AG Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-325-6

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK, HANDLING MAXWELL LEASE PRODUCTION, SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W & S LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall be vented only to vapor control system listed on S-1135-173. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
6. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-325-6 : Jan 25 2022 3:00PM -- HONGM

10. The Standard Maxwell Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-173 apply to the equipment operating under this permit. Deviations from a Standard Maxwell Condition shall be reported under the applicable condition in S-1135-173. [District Rule 2520] Federally Enforceable Through Title V Permit

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

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-326-6

EXPIRATION DATE: 05/31/2021

SECTION: SW24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF WASH TANK T-102, WITH VAPOR RECOVERY (LISTED IN S-1135-70) - METSON LEASE TANK BATTERY

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall be vented to vapor control listed on S-1135-70. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 0.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
5. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
10. The Standard Metson Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-70 apply to the equipment operating under this permit. Deviations from a Standard Metson Condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] 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-1135-327-5

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

905 BBL FWKO VESSEL (V-100) CONNECTED TO VAPOR RECOVERY SYSTEM LISTED ON S-1135-70

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, vessel shall vent only to the vapor control system listed on S-1135-70. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 1.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When disconnected from the vapor control system for maintenance/repairs/upset conditions, vessel 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 2201] Federally Enforceable Through Title V Permit
5. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Vessel shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
10. The Standard Metson Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-70 apply to the equipment operating under this permit. Deviations from a Standard Metson Condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-327-5 : Jan 25 2022 3:00PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-328-4

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL FLOW SPLITTER PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-328-4 : Jan 25 2022 3:00PM -- HONGM

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-329-4

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL FWKO PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-329-4 : Jan 25 2022 3:00PM -- HONGM

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-330-4

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL "GAS BUSTER" PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-330-4 : Jan 25 2022 3:00PM -- HONGM

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-331-4

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL UNFIRED TREATER #1 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-332-4

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL UNFIRED TREATER #2 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-332-4 : Jan 25 2022 3:00PM -- HONGM

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-333-4

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL UNFIRED TREATER #4 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-334-4

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL UNFIRED TREATER #6 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-334-4 : Jan 25 2022 3:00PM -- HONGM

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-335-4

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL UNFIRED TREATER #7 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-335-4 : Jan 25 2022 3:00PM -- HONGM

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-336-5

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL UNFIRED TREATER PRESSURE VESSEL (B-101D) VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1547-865 (ALBERTA SHALE)

PERMIT UNIT REQUIREMENTS

1. The pressure vessel shall only vent to the vapor control system listed on permit S-1547-865. [District Rule 2080] Federally Enforceable Through Title V Permit
2. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
4. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
7. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-336-5 : Jan 25 2022 3:00PM -- HONGM

9. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
12. 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 2080] 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-1135-337-6

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

3,000 BBL (126,000 GALLON) FIXED ROOF STOCK TANK ID# WS-04, HANDLING MAXWELL LEASE PRODUCTION, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall be vented only to vapor control system listed on S-1135-173. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
6. Permittee shall keep accurate records of TVP of liquids stored in each tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-337-6 : Jan 25 2022 3:00PM -- HONGM

10. The Standard Maxwell Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-173 apply to the equipment operating under this permit. Deviations from a Standard Maxwell Condition shall be reported under the applicable condition in S-1135-173. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY SUNSET, KERN COUNTY, CA

S-1135-337-6 : Jan 25 2022 3:00PM -- HONGM

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-339-4

EXPIRATION DATE: 05/31/2021

SECTION: 21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL REJECT TANK CONNECTED TO THE VAPOR CONTROL SYSTEM LISTED ON TANK S-1135-149
(ANDERSON/GOODWIN LEASE)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 1.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Maximum VOC content of hydrocarbons in tank vapor shall not exceed 20% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit
11. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.5 psia under all storage conditions. [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.

12. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
13. Tank shall be vented only to vapor control listed on S-1135-149. [District Rule 2201] Federally Enforceable Through Title V Permit
14. This unit is subject to the AG Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-345-3

EXPIRATION DATE: 05/31/2021

SECTION: 9 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF CRUDE OIL STORAGE TANK #251296 WITH P/V VENT

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. Tank throughput shall not exceed 500 Bbl. per day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
6. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
8. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain monthly records of average daily crude oil throughput. Monthly measurement of the tank level is an approved method of determining the average daily throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-345-3 : Jan 25 2022 3:01PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-346-3

EXPIRATION DATE: 05/31/2021

SECTION: nw21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

1,200 BBL FREE WATER KNOCK OUT (FWKO) #1 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-347-3

EXPIRATION DATE: 05/31/2021

SECTION: nw21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

1,000 BBL FLOW SPLITTER VESSEL CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR S-149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-348-3

EXPIRATION DATE: 05/31/2021

SECTION: nw21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

700 BBL FLOW GAS BUSTER VESSEL CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-349-3

EXPIRATION DATE: 05/31/2021

SECTION: nw21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #1 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR S-149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-349-3 : Jan 25 2022 3:01PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-350-3

EXPIRATION DATE: 05/31/2021

SECTION: ne21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #2 CONNECTED TO VAPOR RECOVERY SYSTEM CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR ' -149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-351-3

EXPIRATION DATE: 05/31/2021

SECTION: nw21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #3 CONNECTED TO VAPOR RECOVERY SYSTEM CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-353-3

EXPIRATION DATE: 05/31/2021

SECTION: nw21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #5 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-354-3

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #6 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR S-1135-149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-354-3 : Jan 25 2022 3:01PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-355-3

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #7 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR S-1135-149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-356-3

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #8 CONNECTED TO THE VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-356-3 : Jan 25 2022 3:01PM -- HONGM

ATTACHMENT B

Previous Title V Operating Permit

San Joaquin Valley Air Pollution Control District

FACILITY: S-1135-0-4

EXPIRATION DATE: 05/31/2021

FACILITY-WIDE REQUIREMENTS

1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1] Federally Enforceable Through Title V Permit
2. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0] Federally Enforceable Through Title V Permit
3. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 an] Federally Enforceable Through Title V Permit
6. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. The operator shall maintain records of required monitoring, where applicable, that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit

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: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

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11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all e)] 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.

23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating not exempt as allowed by Sections 4.1 and 4.2 of Rule 4601 with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
27. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
29. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
30. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
31. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
32. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
33. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
34. Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE
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36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] Federally Enforceable Through Title V Permit
42. Facilities S-1135 and S-1547 constitute one stationary source. [District Rule 2201] Federally Enforceable Through Title V Permit
43. On August 31, 2002, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin August 31 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
44. STEAM GENERATOR FUEL MONITORING CONDITION: For units equipped with post-combustion SO₂ control equipment (e.g. SO₂ scrubber), annual source testing shall be performed to measure SO₂ concentration in the exhaust or SO₂ control efficiency using EPA Methods 6, 6C, 8 or ARB Method 100. SO_x control efficiency determination shall follow procedure in Section 6.2.8 of Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
45. STEAM GENERATOR FUEL MONITORING CONDITION: For units not equipped with post-combustion SO₂ control equipment (e.g. SO₂ scrubber), each fuel source shall be tested for sulfur annually using ASTM D 1072, D 3031, D 4084, or D 3246, D 6228, D 5504, EPA Method 11 or 15, or grab sample analysis by double GC for H₂S and mercaptans. [District Rule 4320] Federally Enforceable Through Title V Permit
46. STEAM GENERATOR GENERAL CONDITION: Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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47. STEAM GENERATOR GENERAL CONDITION: Emission rates during startup, shutdown and refractory curing shall not exceed any of the following: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO₂; sulfur - 200 pounds of SO₂ per hour, or 2000 ppmv as SO₂, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan ; NO₂ - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, 4405, 4406, and 4] Federally Enforceable Through Title V Permit
48. STEAM GENERATOR PERIODIC MONITORING CONDITION: 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. If the unit is equipped with flue gas recirculation (FGR), measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
49. STEAM GENERATOR PERIODIC MONITORING CONDITIONS: If the NO_x and/or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
50. STEAM GENERATOR PERIODIC MONITORING CONDITION: All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
51. STEAM GENERATOR PERIODIC MONITORING CONDITION: The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent by volume 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
52. STEAM GENERATOR PERIODIC MONITORING CONDITION: All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
53. STEAM GENERATOR SOURCE TESTING CONDITION: The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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54. STEAM GENERATOR SOURCE TESTING CONDITION: 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 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO_x (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H₂S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
55. STEAM GENERATOR SOURCE TESTING CONDITION: For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
56. STEAM GENERATOR SOURCE TESTING CONDITION: The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
57. STEAM GENERATOR SOURCE TESTING CONDITION: Source testing to measure natural gas-combustion NO_x and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
58. STEAM GENERATOR GENERAL CONDITION: If the unit is equipped with flue gas recirculation (FGR), whenever the unit is switched to operate with the FGR system in the closed position, compliance source testing for NO_x and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 36 months. [District Rule 1070] Federally Enforceable Through Title V Permit
59. TEOR SYSTEM CONDITION: The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
60. TEOR SYSTEM CONDITION: The fugitive emissions component inspection and reinspection requirements of Section 5.4.1 through Section 5.4.6 of this rule shall not apply to components exclusively handling 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. [District Rule 4401] Federally Enforceable Through Title V Permit
61. TEOR SYSTEM CONDITION: During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
62. TEOR SYSTEM CONDITION: The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. [District Rule 4401, 5.1 and 5.2] Federally Enforceable Through Title V Permit
63. TEOR SYSTEM CONDITION: An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emission to atmosphere, or 2) the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system. [District Rule 4401, 5.1] Federally Enforceable Through Title V Permit

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64. TEOR SYSTEM CONDITION: There shall be no open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.1] Federally Enforceable Through Title V Permit
65. TEOR SYSTEM CONDITION: There shall be no components with a major liquid leak as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.2.2.2] Federally Enforceable Through Title V Permit
66. TEOR SYSTEM CONDITION: There shall be no components with a gas leak of greater than 50,000 ppmv. [District Rule 4401, 5.2.2.3] Federally Enforceable Through Title V Permit
67. TEOR SYSTEM CONDITION: An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
68. TEOR SYSTEM CONDITION: No leaking components (as defined in Section 5.2.2 of Rule 4401) may be used unless they have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
69. TEOR SYSTEM CONDITION: Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit
70. TEOR SYSTEM CONDITION: An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of this Rule. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit
71. TEOR SYSTEM CONDITION: An operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: 1) An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. 2) Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of this Rule. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit
72. TEOR SYSTEM CONDITION: The operator shall also perform the following inspections: 1) An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. 2) An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service, and 3) Except for PRDs subject to the requirements of Section 5.4.4.1 of this Rule, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit
73. TEOR SYSTEM CONDITION: Components located in unsafe areas shall be inspected and repaired at the next process unit turnaround and inaccessible components shall be inspected at least annually. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

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74. TEOR SYSTEM CONDITION: Upon detection of a leak, an operator shall affix a readily visible weatherproof tag to that leaking component that includes the following information: 1) The date and time of leak detection; 2) The date and time of the leak measurement; 3) For a gaseous leak, the leak concentration in ppmv; 4) For a liquid leak, whether it is a major or minor liquid leak; and 5) Whether the component is an essential component, and unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit
75. TEOR SYSTEM CONDITION: The tag shall remain affixed to the leaky component until all the following requirements are met: 1) The component is repaired or replaced, 2) The component is re-inspected as set forth in Section 6.3, and 3) The component is found to be in compliance with Rule 4401. [District Rule 4401, 5.5.2] Federally Enforceable Through Title V Permit
76. TEOR SYSTEM CONDITION: An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit
77. TEOR SYSTEM CONDITION: Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the following three requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: 1) Repair or replace the leaking component, 2) Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or 3) Remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit
78. TEOR SYSTEM CONDITION: The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit
79. TEOR SYSTEM CONDITION: The time of the initial leak detection shall be the start of the repair period specified in Table 3. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit
80. TEOR SYSTEM CONDITION: If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of 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
81. TEOR SYSTEM CONDITION: The operator of any steam-enhanced crude oil production well shall maintain records of 1) the date and well identification where steam injection or well stimulation occurs; and 2) a listing of all steam enhanced wells connected to this system (updated annually within 60 days of permit anniversary). [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
82. TEOR SYSTEM CONDITION: An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit
83. TEOR SYSTEM CONDITION: Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit
84. TEOR SYSTEM CONDITION: The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.6 & 6.5] 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.

85. TEOR SYSTEM CONDITION: An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. 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, and internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit
86. TEOR SYSTEM CONDITION: The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
87. TEOR SYSTEM CONDITION: VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
88. TEOR SYSTEM CONDITION: Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit
89. TEOR SYSTEM CONDITION: The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit
90. TEOR SYSTEM CONDITION: The operator shall maintain an inspection log in which the operator records at least all of the following for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type, 2) The location, type and name or description of each leaking component and description of any unit where the leaking component is found, 3) The date of leak detection and the method of leak detection, 4) For gaseous leaks, the leak concentration in ppmv and, for liquids leaks, whether the leak is major or minor, 5) The date of repair, replacement or removal from operation of leaking components, 6) The identity and location of essential components and critical components as defined in this Rule, found leaking, that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than 1 year after detection, whichever comes earlier, 8) The date or re-inspection and the leak concentration in ppmv after the component is repaired or replaced, 9) The inspectors name, business mailing address, and business telephone number, and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit
91. TEOR SYSTEM CONDITION: By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] 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.

92. TEOR SYSTEM CONDITION: Each hatch shall be closed at all times except during attended repair, replacement, or maintenance operations, providing such activities are done as expeditiously as possible with minimal spillage or material and VOC emissions into the atmosphere. [District Rule 4401, 5.3.2] 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-1135-3-26

EXPIRATION DATE: 05/31/2021

SECTION: 24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

HEATER TREATER #1 SERVED BY VAPOR RECOVERY SYSTEM LISTED ON S-1135-70, AND PERMIT EXEMPT BURNER (NATURAL GAS-FIRED, 5.0 MMBTU/HR OR LESS) (METSON LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Vessel shall only vent to vapor recovery system, permit S-1135-70, except during District approved cleaning and during maintenance procedures. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. Permittee shall keep accurate records of TVP of liquids stored in each tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
4. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 1.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When disconnected from the vapor control system for maintenance/repairs/upset conditions, vessel 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 2201] Federally Enforceable Through Title V Permit
6. Permittee shall keep accurate records of TVP of liquids stored in the vessel. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
7. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Vessel shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Heater treater and appurtenances shall be maintained leak-free (as defined in Rule 4623) except during periods of unit maintenance or cleaning, vapor control system maintenance, and power curtailment. [District Rule 2520] 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: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-3-26 : Jan 13 2022 11:59AM -- HONGM

11. This unit is subject to the Metson Dehy Inspection Conditions on Permit S-1135-70. Deviations from a standard condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-3-26 : Jan 13 2022 11:59AM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-5-38

EXPIRATION DATE: 05/31/2021

SECTION: SW22 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #41 DIS #11867-75 WITH A COEN ULN LOW-NOX BURNER WITH OPTIONAL-USE FGR (BUENA FE LEASE)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
8. This unit is located west of interstate 5 in Kern County. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
9. Maximum annual heat input of the unit shall not exceed 438,000 MMBtu per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. Use of an alternate system consisting of calibrated orifice plates, transmitters, and a programmable logic controller (PLC) may be used to meet this requirement. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Records of monthly and annual heat input of the unit shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-5-38 : Jan 13 2022 12:00PM -- HONGM

12. Emission rates shall not exceed any of the following: PM10: 0.014 lb/MMBtu or SOx (as SO2): 0.001 lb/MMBtu. [District Rule 2201; District Rule 2520, 9.3.2; Dis] Federally Enforceable Through Title V Permit
13. Emission rates, except during startup and shutdown and refractory curing, shall not exceed any of the following: NOx (as NO2): 15 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 50 ppmv @ 3% O2. [District Rule 2201 and District Rules 2520, 9.3.2;] Federally Enforceable Through Title V Permit
14. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
15. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-6-36

EXPIRATION DATE: 05/31/2021

SECTION: 35 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR #43 WITH A COEN QLN-ULN LOW NOX BURNER AND FLUE GAS RECIRCULATION (KENDON LEASE)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
8. This unit is located west of interstate 5 in Kern County. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
9. Maximum annual heat input of the unit shall not exceed 438,000 MMBtu per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas/vapor recovery gas combusted in the unit shall be installed, utilized and maintained. Use of an alternate system consisting of calibrated orifice plates, transmitters, and a programmable logic controller (PLC) may be used to meet this requirement. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Records of monthly and annual heat input of the unit shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.074 lb/MMBtu, SOx (as SO2): 0.005 lb/MMBtu, VOC: 0.007 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, 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.

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-6-36 : Jan 13 2022 12:00PM -- HONGM

13. Emission rates shall not exceed any of the following: PM10: 111.0 lb/day, SO_x (as SO₂): 7.5 lb/day, VOC: 10.5 lb/day, NO_x (as NO₂): 54.0 lb/day or 7,884 lb/year, or CO: 49.5 lb/day or 13,140 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO_x emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NO_x emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
15. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-12-40

EXPIRATION DATE: 05/31/2021

SECTION: 35 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #45 WITH A COEN ULN LOW-NOX BURNER WITH OPTIONAL-USE FGR AND OPTIONAL SO2 SCRUBBER (KENDON LEASE)

PERMIT UNIT REQUIREMENTS

1. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit
2. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
3. Scrubber shall be located on site. Duct work to steam generators may be blinded off or removed. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When steam generator exhaust is routed through the scrubber, permittee shall monitor and record scrubber liquor recirculation rate and pH at least once per day. The scrubber pH shall be maintained above 6.15. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When scrubber is in operation, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Whenever non-PUC/FERC gas is burned in this unit, the scrubber shall operate and shall reduce SO2 emissions by 95% by weight, or shall limit exhaust SO2 to less than or equal to 9 ppmv corrected to 3.0% oxygen. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
8. PUC-quality gas shall be combusted in this unit when scrubber is not in operation. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
9. Maximum annual heat input of the unit shall not exceed 438,000 MMBtu per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas/vapor recovery gas combusted in the unit shall be installed, utilized and maintained. Use of an alternate system consisting of calibrated orifice plates, transmitters, and a programmable logic controller (PLC) may be used to meet this requirement. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Records of monthly and annual heat input of the unit shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-12-40 : Jan 13 2022 12:00PM -- HONGM

12. Emission rate shall not exceed 0.080 lb-PM10/MMBtu. [District Rules 2201, 2520, 4201, and 4301] Federally Enforceable Through Title V Permit
13. Emission rates, except during startup and shutdown and refractory curing, shall not exceed any of the following: NOx (as NO2): 15 ppmv @ 3% O2, VOC: 0.007 lb/MMBtu, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 2520, 4301, 4305, 4306, and 4] Federally Enforceable Through Title V Permit
14. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
15. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-17-19

EXPIRATION DATE: 05/31/2021

SECTION: 24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

STEAM-ENHANCED CRUDE OIL PRODUCTION WELL OPERATION, SERVING 175 STEAM ENHANCED WELLS, INCLUDING PIPING TO INCINERATING STEAM GENERATORS, FOR REINJECTION OF NONCONDENSIBLE VAPORS, OR FOR BALANCING OF WELL VENTS.

PERMIT UNIT REQUIREMENTS

1. TEOR gases shall be re-injected to the formation, incinerated in steam generators #'s S-1135-26, -27,-28,-266 and S-1547-1089, contained within balanced casing vent collection system, or well casing vents shall be closed and produced fluids handled only in controlled production equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
3. the crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
4. Operation shall include gas/liquid separators, condensate knockouts, and compressor knockouts. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Operation shall include, water-cooled heat exchanger, air-cooled heat exchangers, and gas compressors. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Operation shall include 3 pressure type condensate storage tanks (rated @ 50 psig 650 deg F), 3 - 25 bbl open top emergency drain tanks, and non condensable piping to approved incineration devices. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Operation shall include vapor compressor bypass piping, and casing vapor collection piping to 175 wells. [District Rule 2201] Federally Enforceable Through Title V Permit
8. TEOR gas injection system shall include piping, reinjection knockout vessels, interstage coolers and gas/liquid separators, reinjection gas compressors, and liquid transfer pumps. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operation shall include H2S chemical contractors/ scrubbing pressure vessels. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Casing vent vapor collection piping (includes M1, M2, and M3) shall be interconnected such that flow can be directed to all parts of system. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Water/VOCs condensate from all liquid knockout drums shall be pumped to production manifold. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system or injected into formation using DOGGR-approved disposal wells. Permittee shall cease injecting vapors & notify the District if DOG injection approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District Rule 2080] Federally Enforceable Through Title V Permit
13. Block valve upstream of free condensate knockout shall activate and shut in casing vapor at 40 psig system pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Vapors extracted from Metson tank battery, tanks S-1135-70 shall be piped to casing vent collecting system. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-18-18

EXPIRATION DATE: 05/31/2021

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

STEAM-ENHANCED CRUDE OIL PRODUCTION WELL OPERATION SERVING UP TO 140 STEAM ENHANCED WELLS, INCLUDING PIPING FOR BALANCING OF WELL VENTS OR CLOSED CASING VENTS FOR BALANCING OF WELL VENTS OR CLOSED CASING VENTS (WILBERT LEASE)

PERMIT UNIT REQUIREMENTS

1. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
3. TEOR gas VOC content shall not exceed 4.1% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive volatile organic compound (VOC) emissions from this steam-enhanced crude oil production operation shall not exceed 4.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain with the permit accurate fugitive component counts of components in gas service and resulting emissions calculated using the emission factors in the "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" Table IV-2c, dated 2/99. (CAPCOA document). [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-18-18 : Jan 13 2022 12:00PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-20-31

EXPIRATION DATE: 05/31/2021

SECTION: NE35 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

STEAM ENHANCED CRUDE OIL PRODUCTION WELL OPERATION SERVING 405 STEAM ENHANCED WELLS INCLUDING HEAT EXCHANGER(S), GAS/LIQUID SEPARATOR(S), VAPOR COMPRESSOR(S) AND ASSOCIATED PIPING (KENDON/NATIONAL)

PERMIT UNIT REQUIREMENTS

1. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. Steam production wells may be operated as follows: 1) casing vents opened to a casing vent collection system; 2) casing vents shut-in; and/or 3) casing vents operating as a "balanced" system by tying the casing vents together and letting the pressure balance between the well-head casing vents. Vapors from casing vent collection system shall be sent to the approved disposal device(s) listed on this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
3. All produced fluids from any well served by vapor collection system which has had casing gas flow restricted or casing vent closed shall be handled only in closed production equipment served by a 99% effective vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Operation includes: heat exchanger(s), gas/liquid separator(s), gas compressor(s), H2S chemical contactor/scrubber vessel(s) and vapor piping to vapor control system listed on S-1547-460. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Uncondensable gases shall be controlled by one or more of the following options: incineration in Kendon steam generators S-1135-12 and S-1135-24 or National steam generators S-1547-234, S-1547-238 and S-1547-248, and/or injected into vapor disposal well(s). [District Rule 2201] Federally Enforceable Through Title V Permit
6. Condensate storage tanks and oil-water separator shall vent to vapor control system or be equipped with equivalent vapor control provisions approved by District. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Water/VOC condensate from all gas/liquid separators shall be pumped to production manifold. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Injection of collected vapors shall only be conducted under a valid Division of Oil, & Gas, & Geothermal Resources (DOGGR) approval for injection of gases. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Total fugitive emission of volatile organic compounds (VOC) from entire operation shall not exceed 114.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall maintain with the permit accurate fugitive component counts of components in gas service and resulting emissions calculated using the emission factors in the "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" Table IV-2c, dated 2/99. (CAPCOA document). [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-20-31 : Jan 13 2022 12:00PM -- HONGM

11. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-21-13

EXPIRATION DATE: 05/31/2021

SECTION: 22 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

STEAM-ENHANCED CRUDE OIL PRODUCTION OPERATION SERVING UP TO 153 STEAM-ENHANCED WELLS, INCLUDING PIPING FOR BALANCING OF WELL VENTS OR CLOSED CASING VENTS (BUENA FE FEE LEASE)

PERMIT UNIT REQUIREMENTS

1. Maximum VOC content of TEOR vapors shall not exceed 32.3% by weight of Total Organic Compounds (TOC). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed five (5). [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive volatile organic compound (VOC) emissions from this steam-enhanced crude oil production operation shall not exceed 14.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts of components in gas service and resulting emissions calculated using the emission factors in the "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" Table IV-2c, dated 2/99. (CAPCOA document). [District Rule 2201] Federally Enforceable Through Title V Permit
5. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
6. The requirements of District Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit because it is not an in situ combustion well vent. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
7. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-21-13 : Jan 13 2022 1:01PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-22-12

EXPIRATION DATE: 05/31/2021

SECTION: 26 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

STEAM-ENHANCED CRUDE OIL PRODUCTION WELL OPERATION SERVING UP TO 90 STEAM ENHANCED WELLS, INCLUDING PIPING FOR BALANCING OF WELL VENTS OR CLOSED CASING VENTS (MOCAL LEASE)

PERMIT UNIT REQUIREMENTS

1. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
3. Fugitive volatile organic compound (VOC) emissions from this steam-enhanced crude oil production operation shall not exceed 61.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts of components in gas service and resulting emissions calculated using the emission factors in the "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" Table IV-2c, dated 2/99. (CAPCOA document). [District Rule 2201] Federally Enforceable Through Title V Permit
5. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-26-44

EXPIRATION DATE: 05/31/2021

SECTION: 24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #32, DIS# 12051 71, WITH A COEN ULN 3.2 LOW-NOX BURNER AND VENTED TO AN OPTIONAL SO2 SCRUBBER SHARED WITH STEAM GENERATORS LISTED ON S-1135-27, '-28 AND '-266 (METSON LEASE)

PERMIT UNIT REQUIREMENTS

1. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. The minimum scrubber recirculation rate required to maintain compliance with the SO2 limit shall be 790 gpm. Compliance with the minimum recirculation rate requirement shall be determined by averaging the recirculation rate readings (calculated from hourly averages) during operation during the calendar day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. When steam generator exhaust is routed through scrubber, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When scrubber is bypassed, fuel gas sulfur content shall not exceed 5 grains of total sulfur per 100 dscf of fuel gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
5. Whenever non-PUC/FERC gas is burned in this unit, the scrubber shall operate and shall reduce SO2 emissions by 95% by weight, or shall limit exhaust SO2 to less than or equal to 9 ppmv corrected to 3.0% oxygen. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
6. When steam generator exhaust is routed through the scrubber, permittee shall monitor and record scrubber liquor recirculation rate and pH at least once per day. The scrubber pH shall be maintained above 6.15. [District Rule 4320 and 40 CFR 64] Federally Enforceable Through Title V Permit
7. Source testing to demonstrate compliance with SOx emission limits (SOx emission concentration or control efficiency) in this permit shall be conducted annually. Source testing may be deferred if scrubber is bypassed as authorized by this permit. Whenever the unit is switched to scrubbed operation, compliance source testing for SOX shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. Source testing of scrubber exhaust during operation of any one of the steam generators S-1135-26 or S-1547-1089 shall satisfy the testing requirement for this unit. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
8. Source testing to demonstrate compliance with the PM10 emission limit (lb/MMBtu) included in this permit shall be conducted concurrently with the initial compliance test for SOx and every three years thereafter. Source testing of scrubber exhaust during operation of any one of the steam generators S-1135-26 or S-1547-1089 when firing the maximum available quantity of waste gas shall satisfy the PM10 testing requirement for this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. Maximum annual heat input of the unit shall not exceed 438,000 MMBtu per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas/vapor recovery gas combusted in the unit shall be installed, utilized and maintained. Use of an alternate system consisting of calibrated orifice plates, transmitters, and a programmable logic controller (PLC) may be used to meet this requirement. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Records of monthly and annual heat input of the unit shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The total annual emissions from S-1135-26, S-1135-27, S-1135-28, S-1135-266 and S-1547-1089 shall not exceed Sox: 20,951 lb. /yr. or PM10: 32,222 lb. /yr [District Rule 2201]
13. Emission rates, except during startup and shutdown and refractory curing, shall not exceed any of the following: PM10: 0.0266 lb/MMBtu, SOx (as SO2): 9 ppmv @ 3% O2, VOC: 0.007 lb/MMBtu, NOx (as NO2):15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, 4306,] Federally Enforceable Through Title V Permit
14. Emissions rates shall not exceed any of the following: PM10: 39.9 lb/day, SOx (as SO2): 23.3 lb/day, VOC: 10.5 lb/day, NOx (as NO2): 27.0 lb/day or 7884 lb/yr, or CO: 57.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-29-32

EXPIRATION DATE: 05/31/2021

SECTION: 24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

HEATER TREATER (#2) SERVED BY VAPOR RECOVERY SYSTEM LISTED ON S-1135-70 AND PERMIT EXEMPT BURNER (NATURAL GAS-FIRED, 5.0 MMBTU/HR OR LESS) (METSON LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 1.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. When disconnected from the vapor control system for maintenance/repairs/upset conditions, vessel 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 2201] Federally Enforceable Through Title V Permit
4. Permittee shall keep accurate records of TVP of liquids stored in the vessel. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
5. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Vessel shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
7. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Heater treater and appurtenances shall be maintained leak-free (as defined in Rule 4623) except during periods of unit maintenance or cleaning, vapor control system maintenance, and power curtailment. [District Rule 2520] Federally Enforceable Through Title V Permit
9. This unit is subject to the Metson Dehy Inspection Conditions on Permit S-1135-70. Deviations from a standard condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-29-32 : Jan 13 2022 1:01PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-70-19

EXPIRATION DATE: 05/31/2021

SECTION: SW24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

43,470 GALLON FIXED ROOF REJECT TANK T-110, WITH SHARED VAPOR RECOVERY SYSTEM - METSON LEASE TANK BATTERY

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Vapor control system shall include two fin fan heat exchangers, two separators, two compressors, and two liquid transfer pumps, shared between tanks S-1135-70, '-71, '-72, '-322, '-326, and '-327, and heater treaters S-1135-3 and '-29. Collected vapors shall be compressed to existing TEOR system. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions rate calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 22.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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 2201] Federally Enforceable Through Title V Permit
5. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-70-19 : Jan 13 2022 1:01PM -- HONGM

10. METSON DEHY VAPOR RECOVERY CONDITION: The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
11. METSON DEHY VAPOR RECOVERY CONDITION: This tank shall only vent to a vapor recovery system. The vapor recovery system shall be an APCO-approved system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be maintained in a leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4 of District Rule 4623 (amended May 19, 2005). [District Rules 2201 and 4623, 5.6.1] Federally Enforceable Through Title V Permit
12. METSON DEHY VAPOR RECOVERY CONDITION: Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
13. METSON DEHY INSPECTION CONDITION: Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit
14. METSON DEHY INSPECTION CONDITION: Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. METSON DEHY INSPECTION CONDITION: Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. METSON DEHY INSPECTION CONDITION: Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit
17. METSON DEHY INSPECTION CONDITION: Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of District Rule 4623. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of District Rule 4623. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
18. METSON DEHY INSPECTION CONDITION: If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit
19. METSON DEHY INSPECTION CONDITION: Any component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
20. METSON DEHY INSPECTION CONDITION: Operator shall maintain an inspection log containing the following: 1) Date of all inspections; 2) Type and identification of leaking components; 3) Date of leak detection and method of detection; 4) Method used to minimize leak; and 5) Date and emission level of recheck after leak is repaired. [District Rule 2520, 9.3.2] 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.

21. METSON DEHY VAPOR RECOVERY CONDITION: The operator shall ensure that the vapor recovery system is functional and is operating as designed. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
22. METSON DEHY TANK CLEANING CONDITION: This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rules 2020 and 2080] Federally Enforceable Through Title V Permit
23. METSON DEHY TANK CLEANING CONDITION: There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
24. METSON DEHY TANK CLEANING CONDITION: Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor recovery system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor recovery system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
25. METSON DEHY TANK CLEANING CONDITION: Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
26. METSON DEHY TANK CLEANING CONDITION: Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2201] Federally Enforceable Through Title V Permit
27. METSON DEHY VAPOR RECOVERY CONDITION: Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2520] Federally Enforceable Through Title V Permit
28. METSON DEHY TESTING CONDITION: Permittee shall conduct true vapor pressure (TVP) and API gravity 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
29. METSON DEHY TESTING CONDITION: 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. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
30. METSON DEHY TESTING CONDITION: 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
31. METSON DEHY TESTING CONDITION: Permittee shall retain records of TVP and API gravity testing for District inspection upon request. 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 2080] 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-1135-71-11

EXPIRATION DATE: 05/31/2021

SECTION: SW24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

84,000 GALLON FIXED ROOF LACT TANK T-100 WITH VAPOR RECOVERY (LISTED ON S-1135-70) - METSON
LEASE TANK BATTERY

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operation shall include vapor recovery system described on the requirements for permit unit S-1135-70. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 0.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
5. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
10. The Standard Metson Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-70 apply to the equipment operating under this permit. Deviations from a Standard Metson Condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-71-11 : Jan 13 2022 1:01PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-72-11

EXPIRATION DATE: 05/31/2021

SECTION: SW24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED ROOF STANDBY TANK T-120, WITH VAPOR RECOVERY SYSTEM (LISTED ON S-1135-70) - METSON LEASE TANK BATTERY

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Operation shall include vapor recovery system described on the requirements for permit unit S-1135-70. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
5. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
10. The Standard Metson Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-70 apply to the equipment operating under this permit. Deviations from a Standard Metson Condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-72-11 : Jan 13 2022 1:01PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-124-18

EXPIRATION DATE: 05/31/2021

SECTION: NW15 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION SERVING 254 STEAM ENHANCED WELLS, AND TIED TO TEOR '293 INCLUDING PIPING TO BALANCED CGCS, RE-INJECTION COMPRESSORS OR INCINERATING STEAM GENERATORS (EXETER LEASE)

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control system VOC fugitive emission rate shall not exceed 50.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Permittee shall maintain with the permit accurate fugitive component counts for well vent vapor control system and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production, Screening Value Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
4. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
5. Operation shall include vapor control skids including: various size knockout vessels with liquid pumps, gas scrubbers, heat exchangers, vapor compressors, and piping to District approved disposal devices. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Piping to re-injection system shall include re-injection knock out vessels, interstage coolers & gas/liquid separators, injection gas compressors and liquid transfer pumps, as needed. [District Rule 2201] Federally Enforceable Through Title V Permit
7. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system S-1135-124 and '-293, injected into formation using DOGGR-approved disposal wells, or incinerated as fuel in steam generators. Permittee shall cease injecting vapors and notify the District if DOG injection approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District Rule 2080] Federally Enforceable Through Title V Permit
8. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-124-18 : Jan 13 2022 1:01PM - HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-125-16

EXPIRATION DATE: 05/31/2021

SECTION: SW14 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION SERVING 144 STEAM ENHANCED CRUDE OIL PRODUCTION WELL VENTS, TIED TO TEOR '293 AND TVR '173 (W&S FEE LEASE)

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control system VOC fugitive emission rate shall not exceed 38.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Permittee shall maintain with the permit accurate fugitive component counts for well vent vapor control system and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production, Screening Value Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
4. Operation shall include three vapor control skids with casing vent collection piping serving 144 steam drive wells. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Operation shall include vapor control equipment which consists of miscellaneous knockout vessels & liquid removal pumps, gas coolers, heat exchangers, vapor compressors, condensate collection tanks & piping to approved injection well(s). [District Rule 2201] Federally Enforceable Through Title V Permit
6. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system or injected into formation using DOGGR-approved disposal wells. Permittee shall cease injecting vapors and notify the District if DOGGR injection approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Piping to injection system shall include re-injection knockout vessels, interstage coolers & gas/liquid separators, injection gas compressors and liquid transfer pumps, as needed. [District Rule 2201] Federally Enforceable Through Title V Permit
8. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-127-20

EXPIRATION DATE: 05/31/2021

SECTION: NE27 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION INCLUDING ONE TRANSPORTABLE FIN FAN COOLER AND ASSOCIATED PIPING SERVING 383 STEAM ENHANCED WELL VENTS, COLLECTED VAPORS PIPED FROM VAPOR CONTROL COMPRESSOR SKIDS EITHER TO INJECTION COMPRESSORS FOR RE-INJECTION TO DOGGR WELLS, OR CONTAINED WITHIN THE BALANCED CASING GAS COLLECTION SYSTEM (CGCS) (MAXWELL LEASE)

PERMIT UNIT REQUIREMENTS

1. Fin fan cooler may be transported to and installed at any vapor skid within the casing vent vapor collection system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
3. the crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
4. Operation shall include vapor control equipment which consists of miscellaneous knockout vessels & liquid removal pumps, condensate tanks, heat exchangers, gas coolers, vapor compressors, and piping to disposal devices. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Piping to re-injection system shall include re-injection knock out vessels, interstage coolers & gas/liquid separators, injection gas compressors and liquid transfer pumps, as needed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system or injected into formation using DOGGR-approved disposal wells. Permittee shall cease injecting vapors and notify the District if DOGGR disposal approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District Rule 2080] 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 emissions from all components (except those operating under negative pressure at all times) in gas service including polish rods associated with this TEOR operation shall not exceed 140.1 lb VOC/ day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Records shall be kept of DOGGR injection well(s) utilized and volume of vapors injected. Records shall be made readily available to the District upon request. [District Rule 1070] 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: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-127-20 : Jan 13 2022 1:02PM - HONGM

10. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-127-20 : Jan 13 2022 1:02PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-128-26

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY OPERATION (TEOR) SERVING 265 STEAM ENHANCED WELLS INCLUDING BALANCED WELL VENT CONTROL SYSTEM, PIPING TO DISPOSAL WELLS, TIED TO TEOR S-1135-129, TVR S-1135-149, S-1135-281, AND TEST SEPARATOR (NEELY LEASE)

PERMIT UNIT REQUIREMENTS

1. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
3. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system or injected into formation using DOGGR-approved disposal wells. Permittee shall cease injecting vapors and notify the District if DOGGR disposal approval is revoked, denied, terminated, surrendered or altered to disallow disposal. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit an accurate fugitive component count and resulting emissions calculated using EPA Publication 453/R-95-017 November 1995. Permit count and resulting emissions shall be updated annually within 60 days of permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC fugitive emissions from the components in gas service for this permit unit shall not exceed 16.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC fugitive emissions from the components in gas service from the piping from CPMS to the existing piping on the Casing Gas Collection System shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall maintain accurate component count for tank 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 < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
9. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-128-26 : Jan 13 2022 1:02PM - HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-129-29

EXPIRATION DATE: 05/31/2021

SECTION: NW21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY OPERATION AUTHORIZED FOR 425 STEAM ENHANCED WELLS INCLUDING BALANCED WELL VENT CONTROL SYSTEM, VAPOR PIPING TO INJECTION WELLS AND CONNECTED TO VESSELS S-1135-346 THROUGH '-351 AND '-353 THROUGH '-356 (ANDERSON-GOODWIN LEASE)

PERMIT UNIT REQUIREMENTS

1. Volatile organic compound (VOC) emissions from the entire system (including fugitive emissions from components handling vapor and condensate) shall not exceed 143.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
3. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
4. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system or injected into formation using DOGGR-approved disposal wells. Permit holder shall cease injecting vapors and notify the District if DOGGR injection approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain accurate component count for tank 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 < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-149-24

EXPIRATION DATE: 05/31/2021

SECTION: NW 21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL CRUDE OIL LACT TANK ID# AG-01, WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1135-150, '151, '270, '301, '323, '339, AND VESSELS S-1135-346 THROUGH '-351 AND '-353 THROUGH '-356 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Vapor control system shall contain vapor control system piping network and vapor compression system consisting of vapor compressor(s), air-cooled heat exchanger, inlet scrubber, pump, and discharge scrubber. Collected vapors shall be compressed to the Andersen-Goodwin Lease TEOR skid S-1135-129 for disposal. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Compressor suction and knockout drum liquids shall be piped only to vapor-controlled tanks. [District Rule 2520] Federally Enforceable Through Title V Permit
9. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 10.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Maximum VOC content of hydrocarbons in tank vapor shall not exceed 20% by weight. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 4623] Federally Enforceable Through Title V Permit
12. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.5 psia under all storage conditions. [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.

13. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor recovery system and resulting emissions calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017. [District Rule 2080] Federally Enforceable Through Title V Permit
14. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
15. AG DEHY VAPOR RECOVERY CONDITION: The tank shall be equipped with a vapor loss prevention system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
16. AG DEHY VAPOR RECOVERY CONDITION: Except during periods of tank cleaning, inspections, and maintenance allowed by this permit, tank shall be connected to a vapor control system that is functional and operating as designed. [District Rule 2201] Federally Enforceable Through Title V Permit
17. AG DEHY VAPOR RECOVERY CONDITION: All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
18. AG DEHY VAPOR RECOVERY CONDITION: Tanks seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
19. AG DEHY INSPECTION CONDITION: A gas leak is a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with EPA Method 21. A liquid leak is the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623] Federally Enforceable Through Title V Permit
20. AG DEHY VAPOR RECOVERY CONDITION: Operator shall monitor vapor control system pressures on quarterly basis to ensure that system pressure does not exceed pressure relief valve setting. [District Rule 2520] Federally Enforceable Through Title V Permit
21. AG DEHY TESTING CONDITION: Permittee shall conduct true vapor pressure (TVP) and API gravity 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
22. AG DEHY TESTING CONDITION: 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. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
23. AG DEHY TESTING CONDITION: Permittee shall retain records of TVP and API gravity testing for District inspection upon request. 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 2080] Federally Enforceable Through Title V Permit
24. AG DEHY TANK CLEANING CONDITION: This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
25. AG DEHY TANK CLEANING CONDITION: There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

26. AG DEHY TANK CLEANING CONDITION: Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor recovery system during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed. Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
27. AG DEHY TANK CLEANING CONDITION: Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
28. AG DEHY TANK CLEANING CONDITION: Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
29. AG DEHY VAPOR RECOVERY CONDITION: Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2201] Federally Enforceable Through Title V Permit
30. AG DEHY VAPOR RECOVERY CONDITION: The pressure transmitters shall be inspected and maintained in good operating conditions. The inspections shall be conducted on a quarterly basis. Replacing and repairing of each pressure transmitters shall not exceed one hour per day. [District Rule 2520] Federally Enforceable Through Title V Permit
31. AG DEHY INSPECTION CONDITION: All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit
32. AG DEHY INSPECTION CONDITION: A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520] Federally Enforceable Through Title V Permit
33. AG DEHY INSPECTION CONDITION: An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit
34. AG DEHY INSPECTION CONDITION: Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
35. AG DEHY INSPECTION CONDITION: Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520] 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.

36. AG DEHY INSPECTION CONDITION: If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520] Federally Enforceable Through Title V Permit
37. AG DEHY INSPECTION CONDITION: Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520] Federally Enforceable Through Title V Permit
38. AG DEHY VAPOR RECOVERY CONDITION: Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. [District Rule 1070] Federally Enforceable Through Title V Permit
39. AG DEHY TESTING CONDITION: 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

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-150-16

EXPIRATION DATE: 05/31/2021

SECTION: 21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL CRUDE OIL LACT TANK ID# AG-02, WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-149 (ANDERSON/GOODWIN LEASE)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Tank shall be vented only to vapor control system listed on S-1135-149. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 2.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Maximum VOC content of hydrocarbons in tank vapor shall not exceed 20% by weight. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
14. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
15. This unit is subject to the AG Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-151-16

EXPIRATION DATE: 05/31/2021

SECTION: 21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

5,000 BBL REJECT TANK ID# AG-03, WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-149
(ANDERSON/GOODWIN LEASE)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Tank shall be vented only to vapor control system listed on S-1135-149. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 1.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Maximum VOC content of hydrocarbons in tank vapor shall not exceed 20% by weight. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
14. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
15. This unit is subject to the AG Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-173-25

EXPIRATION DATE: 05/31/2021

SECTION: 14 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,600 BBL (67,200 GALLON) FIXED ROOF LACT TANK ID# WS-01, HANDLING MAXWELL LEASE PRODUCTION, AND VESSELS V-101, V-102, V-103, AND V-104; WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1135-174, -175, -178, -325, AND -337 (W&S LEASE) DISCHARGING TO TEOR WVCS S-1135-125

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Vapor control system shall contain vapor control system piping network and vapor compression system consisting of two vapor compressors, fin fan aerial cooler, and knockout vessels. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vapor control system piping network shall include vapor space piping and make-up gas serving storage tanks S-1135-173, '-174, '-175, '-178, '-325, and '-337 with vapor control piping to W&S TEOR operation S-1135-125. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Compressor knock-out drum liquids shall be piped only to vapor controlled tanks or crude sales line. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 2.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
7. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
8. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
9. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
12. MAXWELL DEHY VAPOR RECOVERY CONDITION: The tank shall be equipped with a vapor loss prevention system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
13. MAXWELL DEHY VAPOR RECOVERY CONDITION: Except during periods of tank cleaning, inspections, and maintenance allowed by this permit, tank shall be connected to a vapor control system that is functional and operating as designed. [District Rule 2201] Federally Enforceable Through Title V Permit
14. MAXWELL DEHY VAPOR RECOVERY CONDITION: All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
15. MAXWELL DEHY VAPOR RECOVERY CONDITION: Tanks seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
16. MAXWELL DEHY TANK CLEANING CONDITION: This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
17. MAXWELL DEHY TANK CLEANING CONDITION: There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
18. MAXWELL DEHY TANK CLEANING CONDITION: Prior to opening the tank to allow tank cleaning, the following procedure must be followed: Operate PV valve and vapor control system during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed. Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
19. MAXWELL DEHY TANK CLEANING CONDITION: Prior to opening the tank to allow tank cleaning, one of the following options must be followed: 1) operate the vapor control system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
20. MAXWELL DEHY TANK CLEANING CONDITION: Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
21. MAXWELL DEHY VAPOR RECOVERY CONDITION: Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2201] Federally Enforceable Through Title V Permit
22. MAXWELL DEHY VAPOR RECOVERY CONDITION: The pressure transmitters shall be inspected and maintained in good operating conditions. The inspections shall be conducted on a quarterly basis. Replacing and repairing of each pressure transmitters shall not exceed one hour per day. [District Rule 2520] 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. MAXWELL DEHY INSPECTION CONDITION: All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit
24. MAXWELL DEHY INSPECTION CONDITION: A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520] Federally Enforceable Through Title V Permit
25. MAXWELL DEHY INSPECTION CONDITION: An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit
26. MAXWELL DEHY INSPECTION CONDITION: Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
27. MAXWELL DEHY INSPECTION CONDITION: Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520] Federally Enforceable Through Title V Permit
28. MAXWELL DEHY INSPECTION CONDITION: If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520] Federally Enforceable Through Title V Permit
29. MAXWELL DEHY INSPECTION CONDITION: Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520] Federally Enforceable Through Title V Permit
30. MAXWELL DEHY VAPOR RECOVERY CONDITION: Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. [District Rule 1070] Federally Enforceable Through Title V Permit
31. MAXWELL DEHY TESTING CONDITION: Permittee shall conduct true vapor pressure (TVP) and API gravity 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

32. MAXWELL DEHY TESTING CONDITION: 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. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
33. MAXWELL DEHY TESTING CONDITION: 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
34. MAXWELL DEHY TESTING CONDITION: Permittee shall retain records of TVP and API gravity testing for District inspection upon request. 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 2080] Federally Enforceable Through Title V Permit
35. MAXWELL DEHY INSPECTION CONDITION: A gas leak is a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with EPA Method 21. A liquid leak is the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623] Federally Enforceable Through Title V Permit
36. MAXWELL DEHY VAPOR RECOVERY CONDITION: Operator shall monitor vapor control system pressures on quarterly basis to ensure that system pressure does not exceed pressure relief valve setting. [District Rule 2520] 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-1135-174-12

EXPIRATION DATE: 05/31/2021

SECTION: 14 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

2,000 BBL (84,000 GALLON) FIXED ROOF WASH TANK ID# WS-02, HANDLING MAXWELL LEASE PRODUCTION, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall be vented only to vapor control system listed on S-1135-173. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
6. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
7. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
8. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
9. The Standard Maxwell Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-173 apply to the equipment operating under this permit. Deviations from a Standard Maxwell Condition shall be reported under the applicable condition in S-1135-173. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-174-12 | Jan 13 2022 1:02PM - HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-175-11

EXPIRATION DATE: 05/31/2021

SECTION: 14 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,600 BBL (67,200 GALLON) FIXED ROOF LACT TANK ID# WS-03, HANDLING MAXWELL LEASE PRODUCTION, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall be vented only to vapor control system listed on S-1135-173. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
7. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
8. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-175-11 : Jan 13 2022 1:02PM - HONGM

10. The Standard Maxwell Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-173 apply to the equipment operating under this permit. Deviations from a Standard Maxwell Condition shall be reported under the applicable condition in S-1135-173. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-175-11 : Jan 13 2022 1:02PM - HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-178-13

EXPIRATION DATE: 05/31/2021

SECTION: 14 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL (126,000 GALLON) FIXED ROOF SUMP PROCESS TANK ID# WS-06, HANDLING MAXWELL LEASE PRODUCTION, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall be vented only to vapor control system listed on S-1135-173. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
6. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
7. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
8. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] 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.

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-178-13 | Jan 13 2022 1:02PM - HONGM

10. The Standard Maxwell Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-173 apply to the equipment operating under this permit. Deviations from a Standard Maxwell Condition shall be reported under the applicable condition in S-1135-173. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-178-13 : Jan 13 2022 1:02PM - HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-224-29

EXPIRATION DATE: 05/31/2021

SECTION: 17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

78.2 MW COGENERATION UNIT A WITH GE MODEL G7111E FRAME 7E GAS TURBINE ENGINE WITH DRY LOW NOX COMBUSTORS (DLN1+ TURNDOWN ENHANCE), SELECTIVE CATALYTIC REDUCTION (SCR), AND UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG)

PERMIT UNIT REQUIREMENTS

1. CTG exhaust after the SCR unit shall be equipped with continuously recording emissions monitors dedicated to this unit for NO_x, CO, and O₂. Continuous emissions monitors shall meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
2. CTG shall be equipped with a continuously recording emission monitor preceding the SCR module measuring NO_x concentration for the purposes of calculating ammonia slip. Permittee shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours) when SCR is operated. The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-control. If the analyzer is out-of-control, the permittee shall take appropriate corrective action and then repeat the CD check. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
3. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO_x and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When SCR is operated, permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When SCR is operated, ammonia shall be injected whenever the selective catalytic reduction system catalyst temperature exceeds the minimum ammonia injection temperature recommended by the manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Gas turbine engine shall be equipped with fuel consumption monitor recorder accurate to +/- 3%. [District Rule 2201] Federally Enforceable Through Title V Permit
8. CEM for NO_x (as NO₂) and CO shall conform to Rule 1080 specifications. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit
9. HRSG exhaust stack shall be equipped with permanent stack sampling provisions adequate to facilitate testing consistent with EPA test methods. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-224-29 : Jan 13 2022 1:03PM -- HONGM

10. Flue gas ducting from engine to HRSG shall have no provisions for introduction of dilution air. [District Rule 1110] Federally Enforceable Through Title V Permit
11. Lube oil cooler/accumulation vent shall be equipped with control device(s) approved by the APCO sufficient to prevent emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Lube oil cooler/accumulator vent(s) shall not have detectable emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Natural gas sulfur content shall not exceed 0.31 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All CEM's shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60 Appendix B. [District Rule 1080] Federally Enforceable Through Title V Permit
15. Quarterly CEM reports shall be submitted to the APCO according to EPA regulations as specified in 40 CFR 60 Appendix B. [District Rule 4001 and District rule 1080, 8.0] Federally Enforceable Through Title V Permit
16. Audits of all monitors shall be conducted by independent laboratory in accordance with EPA guidelines and witnessed by District. Reports shall be submitted to District within 60 days of audits. [District Rule 1080] Federally Enforceable Through Title V Permit
17. All notification, recordkeeping, performance tests, reporting requirements, and compliance testing requirements of Rule 4001 NSPS shall be satisfied. [District Rule 4001] Federally Enforceable Through Title V Permit
18. Operational records including fuel type, fuel characteristics, and consumption shall be maintained and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
19. Accurate records of NO_x (as NO₂) and CO flue gas concentration corrected to 15% O₂ and fuel gas sulfur content shall be maintained and shall be reported as described in Rule 1080 upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
20. Emission rates shall not exceed the following: PM₁₀: 0.010 lb/MMBtu, SO_x (as SO₂): 0.001 lb/MMBtu, NO_x (as NO₂): 0.018 lb/MMBtu, VOC: 0.009 lb/MMBtu, CO: 0.057 lb/MMBtu, and ammonia - 10 ppmvd @ 15%O₂. [District Rules 2201, 4201; and Kern County Rule 404] Federally Enforceable Through Title V Permit
21. Permittee shall comply with the following emission limit at all times except during periods of start-up, shutdown, or reduced load: NO_x (as NO₂): 5.0 ppmv, and CO: 25 ppmv, dry @ 15% O₂ corrected to ISO conditions. [40 CFR 60.332(a)(1) & 60.332(a)(2) and District Rule 4703] Federally Enforceable Through Title V Permit
22. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
24. Gas turbine reduced load period is that period not exceeding one hour in duration during which the unit is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
25. Compliance with NO_x and CO emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory on an annual basis. Compliance with NO_x, CO and ammonia emissions limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days of any use of the SCR system, unless compliance with emissions limitations has been demonstrated with the SCR system in operation within the preceding 12 month period. [District Rule 4703 and 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.

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The following test methods shall be used PM10: EPA method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA method 10 (or 10B) or CARB Method 100, O2: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rule 1081, 40 CFR 60.335 (b), and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
28. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 = $((a-(bxc/1,000,000)) \times 1,000,000 / b) \times d$, where a = ammonia injection rate(lb/hr)/17(lb/lb. mol), b = dry exhaust gas flow rate (lb/hr)/(29(lb/lb. mol), c = change in measured NOx concentration ppmv at 15% O2 across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. [District Rule 4102] Federally Enforceable Through Title V Permit
29. Official test results and field data shall be submitted within 60 days after collection. [District Rule 4703 and District Rule 1081] Federally Enforceable Through Title V Permit
30. Combined annual emissions from units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, S-1135-226 shall not exceed any of the following: PM10 - 262,360 lb/yr, SOx (as SO2) - 24,200 lb/yr, NOx (as NO2) - 464,170 lb/yr, VOC - 236,520 lb/yr, or CO - 1,443,101 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. For units equipped with continuous emissions monitors (CEMs), CEM data may be used in place of calculated emissions. If CEM shows a violation, CEM data shall be used. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
32. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District Rule 2201] Federally Enforceable Through Title V Permit
33. When three gas turbine engines S-1135-224, '-225, and '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
34. When up to two gas turbine engines S-1135-224, '-225, or '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 may be operated. [District Rule 2201] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of operational status of units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, and S-1135-226 on a daily basis. [District Rule 2201] Federally Enforceable Through Title V Permit
36. 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 4703] Federally Enforceable Through Title V Permit
37. CEC emission rates, except during periods of startup, shutdown, or reduced load shall not exceed PM10: 9.98 lb/hr, SOx (as SO2): 0.92 lb/hr, NOx (as NO2): 17.66 lb/hr, VOC: 9.00 lb/hr, and CO: 54.91 lb/hr. [District Rules 2080 and 4703, and 40 CFR 60] Federally Enforceable Through Title V Permit
38. For CEC purposes, emissions during periods of startup and shutdown shall not exceed the following values average over 2 hours: NOx: 140 lb/hr, and CO: 94 lb/hr. [District Rule 2080] Federally Enforceable Through Title V Permit
39. The CEC shall be notified of any changes to the combined annual emission limits for steam generators S-1135-115, -119, -122, and -123, and cogeneration units S-1135-224, -225, and -226, only to the extent to be informed of their impact on the Midway-Sunset Cogeneration Facility. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

40. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit
41. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [Kern County Rule 108; District Rules 1080 and 4703; 40 CFR 60.7 (b)] Federally Enforceable Through Title V Permit
42. The permittee shall maintain hourly average records of NOx and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by the CO CEM data and the VOC/CO relationship determined by annual CO and VOC source tests of NOx, CO, and ammonia emission concentrations (ppmv @ 15% O2), and hourly, daily, and twelve month rolling. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [Kern County Rule 108 and District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
44. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Kern County Rule 108 and District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
45. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 1081] Federally Enforceable Through Title V Permit
46. Unit shall be fired on a natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333 (a) & (b); 40 CFR 60.334 (c)(2); Kern County Rule 407; and District Rule 4801] Federally Enforceable Through Title V Permit
47. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
48. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using method(s) specified on this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
49. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246, or double GC for H2S and mercaptans. [40 CFR 60.335 (d)] Federally Enforceable Through Title V Permit
50. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334 (b)(2)] Federally Enforceable Through Title V Permit
51. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(a)(2)] Federally Enforceable Through Title V Permit
52. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [40 CFR 60.332 (a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
53. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332 (a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
54. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334 (a),(b),(c) and District Rule 4703, 5.0] 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.

55. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332 (a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit
56. This unit is a simple combustion turbine as defined in 40 CFR 72.6 (b)(1) and shall not be subject to the requirements of 40 CFR Part 72. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
57. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rules 404, 108, and 108.1. A permit shield is granted from these requirements. [SJVUAPCD Rule 2520, 13.2] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: Kern County Rule 407; District Rules 4801, 4201, 1081, and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332 (c) and (d); 60.334 (b), (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
60. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: District Rules 1080, 7.3 and 4703, 6.2.2; 40 CFR 60.332(a), (b); 60.333(a) and (b), 60.334(a), (b), and (c)(1); 60.335(a), (b) and (c)(2). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
61. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
62. The Permittee (MSCC) must notify EPA by telephone, facsimile, or electronic mail transmission within two (2) working days following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit stated in any conditions where PSD is cited as the basis of the condition. In addition, the Permittee (MSCC) must notify EPA in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in any conditions where PSD is cited as the basis of the condition, and the methods utilized to mitigate emissions and restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause, except as provided for in the conditions where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
63. A malfunction means a sudden and unavoidable breakdown of equipment or of a process beyond the reasonable control of the source. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
64. Emissions in excess of the limits specified in any conditions where PSD is cited as the basis of the condition shall constitute a violation of this permit and may be the subject of enforcement proceedings. [PSD SJ-87-01] 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.

65. Affirmative defense: In the context of an enforcement proceeding, emissions which are below the limits set forth in any condition where PSD is cited as the basis of the condition shall not be subject to penalty if the Permittee (MSCC) retains properly signed, contemporaneous operating logs or other relevant evidence and can demonstrate all of the following: i.) A malfunction caused the emissions in excess of the limits in any condition where PSD is cited as the basis of the condition; ii.) The permitted facility, including the air pollution control equipment and process equipment, was being properly operated at the time of the malfunction; iii.) Preventative maintenance was regularly performed in a manner consistent with good practice for minimizing emissions; iv.) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; v.) During the period of the malfunction, the permittee (MSCC) took all reasonable steps to minimize the amount and duration of emissions (including any bypass) that exceeded the emission limits provided in any condition where PSD is cited as the basis of the condition. Reasonable steps to minimize emissions could include, but are not limited to, reducing production to the lowest level practicable, reducing the material feed that results in the increased emissions, and switching to alternative, less polluting fuels. Where repairs were required, repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as possible; and vi.) The permittee (MSCC) complied with the malfunction reporting requirements as specified in the condition where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
66. All emissions, including those associated with a malfunction which may be eligible for an affirmative defense, must be included in all emissions calculations and demonstrations of compliance with mass emission limits (e.g., daily, monthly, and annual emission limits) specified in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
67. This provision is in addition to any emergency or malfunction provision contained in any applicable requirement or elsewhere in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
68. The EPA Regional Administrator, and/or their authorized representative, upon the presentation of credential, must be permitted: (1) to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of the PSD permit SJ-87-01; and (2) at reasonable times to have access to and copy any records required to be kept under the terms and conditions of PSD permit SJ 87-01; and (3) to inspect any equipment, operation, or method required in the PSD permit SJ-87-01; and (4) to sample emissions from source(s). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
69. In the event of any changes in control or ownership of facilities to be constructed or modified, this permit shall be binding on all subsequent owners and operators. The Permittee (MSCC) shall notify the succeeding owner and operator of the existence of the PSD permit SJ-87-01 and its conditions by letter, a copy of which shall be forwarded to the EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
70. The provisions of the PSD permit SJ-87-01 are severable, and , if any provisions of the permit is held invalid, the remainder of the permit must not be affected thereby. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
71. The permittee (MSCC) must construct and operate the proposed power plant in compliance with all other applicable provisions of 40 CFR Parts 52, 60, 62, and 63 and all other applicable Federal, State, and local air quality regulations. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
72. On or before the date of startup (as defined in 40 C.F.R. 60.2) of the Western Midway Sunset Cogeneration Project (WMSCP; PSD Permit No. SJ-00-01) and thereafter the Permittee (MSCC) must install, continuously operate, and maintain the Dry Low NOx (DLN) combustion systems to reduce NOx emissions from each of its three turbines. The Permittee (MSCC) shall also use proper combustion techniques for the control of CO emissions from the equipment at MSCP. [PSD SJ-87-01] 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.

73. Within 60 days after achieving the base load, but no later than 180 days after initial startup of all three modified turbines (as defined in 40 C.F.R. 60.2), and annually thereafter (at about the anniversary of the initial performance test), the Permittee (MSCC) must conduct performance tests (as described in 40 C.F.R. 60.8) for NO_x and CO on the exhaust stack gases. The Permittee (MSCC) must furnish the District, the California Air Resources Board (CARB), and the EPA a written report of the results of such tests. Upon written request from the Permittee (MSCC), and adequate justification, EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
74. Performance tests for the emissions of NO_x and CO must be conducted and the results reported in accordance with the test methods set forth in 40 C.F.R. 60.8 and 40 C.F.R. 60, Appendix A. The following test methods must be used: a.) Performance tests for the emissions of NO_x must be conducted using EPA Method 1-4 and 7E. b.) Performance tests for the emissions of CO must be conducted using the EPA Methods 1-4 and 10. In lieu of the above-mentioned test methods, equivalent methods may be used with prior written approval from EPA. The Permittee (MSCC) must notify EPA in writing at least 30 days prior to such tests to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
75. For performance test purposes, sampling ports, platforms, and access must be provided by the Permittee on the emission unit exhaust system in accordance with 40 C.F.R. 60.8(e). [PSD SJ 87-01] Federally Enforceable Through Title V Permit
76. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of CO into the atmosphere in excess of the following emission limits per turbine: The more stringent of 25 ppmvd @ 15% O₂ or 55 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
77. This condition applies prior to the startup of the WMSCP: On and after the date of start up any of the three turbines at MSCP must not discharge (per turbine, and based on 3-hour rolling average) into the atmosphere CO in excess of the following of any of: 1.) The more stringent of 52.0 ppmvd @ 15% O₂ or 94 pounds for loads greater than or equal to 75%. 2.) The more stringent of 62.0 ppmvd @ 15% O₂ or 94 pounds for loads greater than or equal to 35% but less than 75%. 3.) 94 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
78. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of NO_x into the atmosphere in excess of the following emission limits per turbine: The more stringent of 10 ppmvd @ 15% O₂ or 36.1 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
79. This condition applies prior to the startup of the WMSCP: On and after the date of start-up of any of the three turbines, MSCC must not discharge (per turbine, based on 3-hour rolling average) into the atmosphere NO_x (as NO₂) in excess of the following: 1.) The more stringent of 25.0 ppmvd @ 15% O₂ or 85.0 pounds per hour for loads greater than or equal to 75%; 2.) The more stringent of 42.0 ppmvd @ 15% O₂ or 85 pounds per hour for loads greater than or equal to 35% but less than 75%; 3.) 85 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
80. The hourly (3-hour averaging) emissions must not exceed: 1.) 94 pounds of CO and 85 pounds of NO_x; 2.) All CEMs must be operating during startups and shut downs; 3.) The time, date and duration of each startup and shutdown event must be recorded. The records must include the lbs/hour calculations based on the CEM data. These records must be kept for five years following the date of such events. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
81. Prior to the date of startup and thereafter, the Permittee (MSCC) must install, maintain and operate the following continuous monitoring systems (CEMs) in the exhaust stacks: a.) Continuous monitoring systems to measure stack gas NO_x, CO and O₂ concentrations. The systems must meet EPA monitoring performance specification (40 C.F.R. 60.13 and 40 C.F.R. 60, Appendix B, Performance Specifications 2, 3 and 4); b.) A continuous monitoring system to measure stack gas and natural gas volumetric flow rates. The stack gas flow measurement system must meet EPA Performance Specifications for (40 C.F.R. Part 52, Appendix E). [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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82. The Permittee (MSCC) must maintain a file of all measurements, including continuous monitoring systems evaluations; all continuous monitoring systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; performance and all other information required by 40 C.F.R. 60 Appendices A-B recorded in a permanent form suitable for inspection. The file must be retained for five years following the date of such measurements, maintenance, reports and records. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
83. The Permittee (MSCC) must notify EPA of the date on which demonstration for the continuous monitoring system performance commences (40 C.F.R. 60.13). This date must be no later than 60 days after full load operation but not later than 180 days after startup. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
84. The Permittee (MSCC) must submit a written report of all excess emissions to EPA for every calendar quarter. The quarterly report must include the following: a.) The magnitude of the excess emissions computed in accordance with 40 C.F.R. 60.13(h), any conversion factors used, and the date and time of commencement and compilation of each time period of excess emissions; b.) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of any equipment. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted must also be reported; c.) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments; d.) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information must be stated in the report; and e.) Excess emissions must be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM exceeds the maximum emission limits set forth in the condition with a CO emission limit, where PSD is cited as the basis of the condition or any 3-hour period during which the average emissions of NOx exceed the maximum emission limits set forth in the condition with a NOx emission limit, where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
85. Excess emissions indicated by the CEM system must be considered violations of the applicable emission limit for the purpose of this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
86. The quality assurance project plan used by the Permittee (MSCC) for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 C.F.R. Part 60, Appendix F, must be available upon request to EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
87. The Permittee (MSCC) must keep a monthly record of all fuel uses. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
88. The proposed power plant is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 C.F.R. 60). The owner or operator must meet all applicable requirements of 40 C.F.R. 60 Subparts A and GG of this regulation. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
89. All three turbines will fire natural gas only. The Permittee (MSCC) must only combust pipeline quality natural gas with sulfur content (as S) below 0.75 grains per 100 dry standard cubic feet (dscf). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
90. MSCC shall have legal and operational responsibility and control of all air pollutant emitting activities of the MSCP. This responsibility shall include, but shall not be limited to the following: 1.) Operating and maintaining the project to comply with all federal, state, and local air pollution laws, regulations, orders, and other requirements; 2.) Ensuring the emissions offsets, tradeoffs, or other emission reductions required for this project under permits issued by the U.S. EPA, the District, and/or the California Energy Commission are obtained as required; or 3.) Any violations of any air pollution requirements are the legal responsibility of MSCC, in addition to any other legal responsible entity. Any proposed change to this condition shall require prior written concurrence of the US EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
91. In accordance with the emissions offset plan proposed by the applicant for the District (dated November 12, 1987) and the emissions offset plan for the U.S. EPA (dated July 21, 1987), Aera Energy LLC must not operate the following four steam generators (listed by District permit numbers S-1135-119, S-1135-122, S-1135-123, and S-1135-115) simultaneously with the firing of the MSCP turbines unless one or more of the MSCP turbines is shutdown: Andersen-Goodwin Lease: S-1135-119, S-1135-122, S-1135-123 and Neely Lease: S-1135-115 [PSD SJ-87-01] 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.

92. MSCC shall maintain a record of the date(s), time(s), and duration(s) of the shutdown of any of the above mentioned steam generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
93. Aera Energy LLC shall not lease or modify the permit conditions for any of the above generators for use in the Midway Sunset Oil field, unless creditable emissions reductions (as defined in 40 C.F.R. 52.21), at a ratio of at least 1:1, are provided for emissions from those generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
94. Aera Energy LLC shall not modify any of the District Permit to Operate numbers. If any of the above steam generators are issued new Permit to Operate numbers by the District, Aera Energy LLC shall notify the U.S. EPA in writing of this action and shall make such notification upon issuance of a new Permit to Operate number. This letter shall include the original District Permit to Operate number(s) of the subject generator(s) and a copy of the new Permit to Operate issued by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
95. Aera Energy LLC shall notify the U.S. EPA in writing of the intention to sell, or potential sale, of any of the above generators and shall make such notification prior to the District's final action of the re-permitting process associated with the sale of a generators. This letter shall include the following: a.) The subject steam generator as identified by its District Permit to Operate number; b.) The name of the buyer (as identified by the company name) of the steam generator; and c.) An estimated date of the final action of the re-permitting process by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
96. The allowable incidental taking (killing, harming, or harassment) of San Joaquin kit foxes, blunt-nosed leopard lizards, and giant kangaroo rats is confined to the proposed cogeneration plant site one half mile radius around this site (on lands owned or leased by Aera Energy LLC), and associated subject cogeneration plant facilities (including pipelines, transmission lines, temporary equipment stockpiling areas, and access roads) as discussed in the project Application for Certification report (Sun Cogeneration Company and Southern Sierra Energy Company 1985). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
97. MSCC is required to implement the "Agreement on Conditions for Mitigation of the Biological Impacts of the Midway-Sunset Project" as required by the U.S. Fish and Wildlife Service (USFWS) (Memorandum dated March 16, 1987 from the USFWS to the US EPA). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
98. Any endangered species found dead should be turned in to the California Department of Fish and Game for Analysis. MSCC must also report this event to the USFWS. The USFWS may recommend amendment to the existing project actions pending results of the analysis. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
99. All correspondence as required by this permit shall be forwarded to: 1.) Director, Air Division (Attn: Air-3) EPA Region IX 75 Hawthorne Street San Francisco, CA 94105-3901 Tel: (415) 744-1291 Fax: (415) 744-1076; 2.) Chief, Stationary Source Division, California Air Resource Board P.O. Box 2815 Sacramento, CA 95812; and 3.) Air Pollution Control Officer, San Joaquin Valley Unified APCD 2700 M Street, Suite 275 Bakersfield, CA 93301-2370. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
100. Aera Energy LLC is the legal owner of the subject steam generators and of the leases on which the steam generators are located. MSCC is the legal owner of the gas turbine cogeneration facility. MSCC is jointly owned by Sun Cogeneration Limited Partnership (Sun Cogen LP) and San Joaquin Energy Company. Sun Cogen LP is managed and controlled by a wholly owned subsidiary of Aera Energy LLC. (See Condition 104) [PSD SJ-87-01] 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-1135-225-28

EXPIRATION DATE: 05/31/2021

SECTION: 17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

78.2 MW COGENERATION UNIT B WITH GE MODEL G7111E FRAME 7E GAS TURBINE ENGINE WITH DRY LOW NOX COMBUSTORS (DLN1+ TURNDOWN ENHANCE), SELECTIVE CATALYTIC REDUCTION (SCR), AND UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG)

PERMIT UNIT REQUIREMENTS

1. CTG exhaust after the SCR unit shall be equipped with continuously recording emissions monitors dedicated to this unit for NO_x, CO, and O₂. Continuous emissions monitors shall meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
2. CTG shall be equipped with a continuously recording emission monitor preceding the SCR module measuring NO_x concentration for the purposes of calculating ammonia slip. Permittee shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours) when SCR is operated. The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-control. If the analyzer is out-of-control, the permittee shall take appropriate corrective action and then repeat the CD check. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
3. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO_x and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When SCR is operated, permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When SCR is operated, ammonia shall be injected whenever the selective catalytic reduction system catalyst temperature exceeds the minimum ammonia injection temperature recommended by the manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Gas turbine engine shall be equipped with fuel consumption monitor recorder accurate to +/- 3%. [District Rule 2201] Federally Enforceable Through Title V Permit
8. CEM for NO_x (as NO₂) and CO shall conform to Rule 1080 specifications. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit
9. HRSG exhaust stack shall be equipped with permanent stack sampling provisions adequate to facilitate testing consistent with EPA test methods. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-225-28 : Jan 13 2022 1:03PM - HONGM

10. Flue gas ducting from engine to HRSG shall have no provisions for introduction of dilution air. [District Rule 1110] Federally Enforceable Through Title V Permit
11. Lube oil cooler/accumulation vent shall be equipped with control device(s) approved by the APCO sufficient to prevent emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Lube oil cooler/accumulator vent(s) shall not have detectable emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Natural gas sulfur content shall not exceed 0.31 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All CEM's shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60 Appendix B. [District Rule 1080] Federally Enforceable Through Title V Permit
15. Quarterly CEM reports shall be submitted to the APCO according to EPA regulations as specified in 40 CFR 60 Appendix B. [District Rule 4001 and District rule 1080, 8.0] Federally Enforceable Through Title V Permit
16. Audits of all monitors shall be conducted by independent laboratory in accordance with EPA guidelines and witnessed by District. Reports shall be submitted to District within 60 days of audits. [District Rule 1080] Federally Enforceable Through Title V Permit
17. All notification, recordkeeping, performance tests, reporting requirements, and compliance testing requirements of Rule 4001 NSPS shall be satisfied. [District Rule 4001] Federally Enforceable Through Title V Permit
18. Operational records including fuel type, fuel characteristics, and consumption shall be maintained and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
19. Accurate records of NO_x (as NO₂) and CO flue gas concentration corrected to 15% O₂ and fuel gas sulfur content shall be maintained and shall be reported as described in Rule 1080 upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
20. Emission rates shall not exceed the following: PM₁₀: 0.010 lb/MMBtu, SO_x (as SO₂): 0.001 lb/MMBtu, NO_x (as NO₂): 0.018 lb/MMBtu, VOC: 0.009 lb/MMBtu, CO: 0.057 lb/MMBtu, and ammonia - 10 ppmvd @ 15%O₂. [District Rules 2201, 4201; and Kern County Rule 404] Federally Enforceable Through Title V Permit
21. Permittee shall comply with the following emission limit at all times except during periods of start-up, shutdown, or reduced load: NO_x (as NO₂): 5.0 ppmv, and CO: 25 ppmv, dry @ 15% O₂ corrected to ISO conditions. [40 CFR 60.332(a)(1) & 60.332(a)(2) and District Rule 4703] Federally Enforceable Through Title V Permit
22. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
24. Gas turbine reduced load period is that period not exceeding one hour in duration during which the unit is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
25. Compliance with NO_x and CO emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory on an annual basis. Compliance with NO_x, CO and ammonia emissions limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days of any use of the SCR system, unless compliance with emissions limitations has been demonstrated with the SCR system in operation within the preceding 12 month period. [District Rule 4703 and 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.

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The following test methods shall be used PM10: EPA method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA method 10 (or 10B) or CARB Method 100, O2: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rule 1081, 40 CFR 60.335 (b), and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
28. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 = $((a-(bxc/1,000,000)) \times 1,000,000 / b) \times d$, where a = ammonia injection rate(lb/hr)/17(lb/lb. mol), b = dry exhaust gas flow rate (lb/hr)/(29(lb/lb. mol), c = change in measured NOx concentration ppmv at 15% O2 across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. [District Rule 4102] Federally Enforceable Through Title V Permit
29. Official test results and field data shall be submitted within 60 days after collection. [District Rule 4703 and District Rule 1081] Federally Enforceable Through Title V Permit
30. Combined annual emissions from units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, S-1135-226 shall not exceed any of the following: PM10 - 262,360 lb/yr, SOx (as SO2) - 24,200 lb/yr, NOx (as NO2) - 464,170 lb/yr, VOC - 236,520 lb/yr, or CO - 1,443,101 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. For units equipped with continuous emissions monitors (CEMs), CEM data may be used in place of calculated emissions. If CEM shows a violation, CEM data shall be used. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
32. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District Rule 2201] Federally Enforceable Through Title V Permit
33. When three gas turbine engines S-1135-224, '-225, and '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
34. When up to two gas turbine engines S-1135-224, '-225, or '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 may be operated. [District Rule 2201] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of operational status of units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, and S-1135-226 on a daily basis. [District Rule 2201] Federally Enforceable Through Title V Permit
36. 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 4703] Federally Enforceable Through Title V Permit
37. CEC emission rates, except during periods of startup, shutdown, or reduced load shall not exceed PM10: 9.98 lb/hr, SOx (as SO2): 0.92 lb/hr, NOx (as NO2): 17.66 lb/hr, VOC: 9.00 lb/hr, and CO: 54.91 lb/hr. [District Rules 2080 and 4703, and 40 CFR 60] Federally Enforceable Through Title V Permit
38. For CEC purposes, emissions during periods of startup and shutdown shall not exceed the following values average over 2 hours: NOx: 140 lb/hr, and CO: 94 lb/hr. [District Rule 2080] Federally Enforceable Through Title V Permit
39. The CEC shall be notified of any changes to the combined annual emission limits for steam generators S-1135-115, -119, -122, and -123, and cogeneration units S-1135-224, -225, and -226, only to the extent to be informed of their impact on the Midway-Sunset Cogeneration Facility. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

40. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit
41. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [Kern County Rule 108; District Rules 1080 and 4703; 40 CFR 60.7 (b)] Federally Enforceable Through Title V Permit
42. The permittee shall maintain hourly average records of NO_x and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by the CO CEM data and the VOC/CO relationship determined by annual CO and VOC source tests of NO_x, CO, and ammonia emission concentrations (ppmv @ 15% O₂), and hourly, daily, and twelve month rolling. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. A violation of NO_x emission standards indicated by the NO_x CEM shall be reported by the operator to the APCO within 96 hours. [Kern County Rule 108 and District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
44. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Kern County Rule 108 and District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
45. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NO_x and CO. [District Rule 1081] Federally Enforceable Through Title V Permit
46. Unit shall be fired on a natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333 (a) & (b); 40 CFR 60.334 (c)(2); Kern County Rule 407; and District Rule 4801] Federally Enforceable Through Title V Permit
47. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
48. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using method(s) specified on this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
49. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246, or double GC for H₂S and mercaptans. [40 CFR 60.335 (d)] Federally Enforceable Through Title V Permit
50. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334 (b)(2)] Federally Enforceable Through Title V Permit
51. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(a)(2)] Federally Enforceable Through Title V Permit
52. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [40 CFR 60.332 (a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
53. The operator shall provide source test information annually regarding the exhaust gas NO_x concentration corrected to 15% O₂ (dry). [40 CFR 60.332 (a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
54. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334 (a),(b),(c) and District Rule 4703, 5.0] 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.

55. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332 (a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit
56. This unit is a simple combustion turbine as defined in 40 CFR 72.6 (b)(1) and shall not be subject to the requirements of 40 CFR Part 72. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
57. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rules 404, 108, and 108.1. A permit shield is granted from these requirements. [SJVUAPCD Rule 2520, 13.2] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: Kern County Rule 407; District Rules 4801, 4201, 1081, and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332 (c) and (d); 60.334 (b), (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
60. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: District Rules 1080, 7.3 and 4703, 6.2.2; 40 CFR 60.332(a), (b); 60.333(a) and (b), 60.334(a), (b), and (c)(1); 60.335(a), (b) and (c)(2). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
61. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
62. The Permittee (MSCC) must notify EPA by telephone, facsimile, or electronic mail transmission within two (2) working days following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit stated in any conditions where PSD is cited as the basis of the condition. In addition, the Permittee (MSCC) must notify EPA in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in any conditions where PSD is cited as the basis of the condition, and the methods utilized to mitigate emissions and restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause, except as provided for in the conditions where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
63. A malfunction means a sudden and unavoidable breakdown of equipment or of a process beyond the reasonable control of the source. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
64. Emissions in excess of the limits specified in any conditions where PSD is cited as the basis of the condition shall constitute a violation of this permit and may be the subject of enforcement proceedings. [PSD SJ-87-01] 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.

65. Affirmative defense: In the context of an enforcement proceeding, emissions which are below the limits set forth in any condition where PSD is cited as the basis of the condition shall not be subject to penalty if the Permittee (MSCC) retains properly signed, contemporaneous operating logs or other relevant evidence and can demonstrate all of the following: i.) A malfunction caused the emissions in excess of the limits in any condition where PSD is cited as the basis of the condition; ii.) The permitted facility, including the air pollution control equipment and process equipment, was being properly operated at the time of the malfunction; iii.) Preventative maintenance was regularly performed in a manner consistent with good practice for minimizing emissions; iv.) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; v.) During the period of the malfunction, the permittee (MSCC) took all reasonable steps to minimize the amount and duration of emissions (including any bypass) that exceeded the emission limits provided in any condition where PSD is cited as the basis of the condition. Reasonable steps to minimize emissions could include, but are not limited to, reducing production to the lowest level practicable, reducing the material feed that results in the increased emissions, and switching to alternative, less polluting fuels. Where repairs were required, repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as possible; and vi.) The permittee (MSCC) complied with the malfunction reporting requirements as specified in the condition where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
66. All emissions, including those associated with a malfunction which may be eligible for an affirmative defense, must be included in all emissions calculations and demonstrations of compliance with mass emission limits (e.g., daily, monthly, and annual emission limits) specified in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
67. This provision is in addition to any emergency or malfunction provision contained in any applicable requirement or elsewhere in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
68. The EPA Regional Administrator, and/or their authorized representative, upon the presentation of credential, must be permitted: (1) to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of the PSD permit SJ-87-01; and (2) at reasonable times to have access to and copy any records required to be kept under the terms and conditions of PSD permit SJ 87-01; and (3) to inspect any equipment, operation, or method required in the PSD permit SJ-87-01; and (4) to sample emissions from source(s). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
69. In the event of any changes in control or ownership of facilities to be constructed or modified, this permit shall be binding on all subsequent owners and operators. The Permittee (MSCC) shall notify the succeeding owner and operator of the existence of the PSD permit SJ-87-01 and its conditions by letter, a copy of which shall be forwarded to the EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
70. The provisions of the PSD permit SJ-87-01 are severable, and , if any provisions of the permit is held invalid, the remainder of the permit must not be affected thereby. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
71. The permittee (MSCC) must construct and operate the proposed power plant in compliance with all other applicable provisions of 40 CFR Parts 52, 60, 62, and 63 and all other applicable Federal, State, and local air quality regulations. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
72. On or before the date of startup (as defined in 40 C.F.R. 60.2) of the Western Midway Sunset Cogeneration Project (WMSCP; PSD Permit No. SJ-00-01) and thereafter the Permittee (MSCC) must install, continuously operate, and maintain the Dry Low NOx (DLN) combustion systems to reduce NOx emissions from each of its three turbines. The Permittee (MSCC) shall also use proper combustion techniques for the control of CO emissions from the equipment at MSCP. [PSD SJ-87-01] 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.

73. Within 60 days after achieving the base load, but no later than 180 days after initial startup of all three modified turbines (as defined in 40 C.F.R. 60.2), and annually thereafter (at about the anniversary of the initial performance test), the Permittee (MSCC) must conduct performance tests (as described in 40 C.F.R. 60.8) for NO_x and CO on the exhaust stack gases. The Permittee (MSCC) must furnish the District, the California Air Resources Board (CARB), and the EPA a written report of the results of such tests. Upon written request from the Permittee (MSCC), and adequate justification, EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
74. Performance tests for the emissions of NO_x and CO must be conducted and the results reported in accordance with the test methods set forth in 40 C.F.R. 60.8 and 40 C.F.R. 60, Appendix A. The following test methods must be used: a.) Performance tests for the emissions of NO_x must be conducted using EPA Method 1-4 and 7E. b.) Performance tests for the emissions of CO must be conducted using the EPA Methods 1-4 and 10. In lieu of the above-mentioned test methods, equivalent methods may be used with prior written approval from EPA. The Permittee (MSCC) must notify EPA in writing at least 30 days prior to such tests to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
75. For performance test purposes, sampling ports, platforms, and access must be provided by the Permittee on the emission unit exhaust system in accordance with 40 C.F.R. 60.8(e). [PSD SJ 87-01] Federally Enforceable Through Title V Permit
76. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of CO into the atmosphere in excess of the following emission limits per turbine: The more stringent of 25 ppmvd @ 15% O₂ or 55 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
77. This condition applies prior to the startup of the WMSCP: On and after the date of start up any of the three turbines at MSCP must not discharge (per turbine, and based on 3-hour rolling average) into the atmosphere CO in excess of the following of any of: 1.) The more stringent of 52.0 ppmvd @ 15% O₂ or 94 pounds for loads greater than or equal to 75%. 2.) The more stringent of 62.0 ppmvd @ 15% O₂ or 94 pounds for loads greater than or equal to 35% but less than 75%. 3.) 94 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
78. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of NO_x into the atmosphere in excess of the following emission limits per turbine: The more stringent of 10 ppmvd @ 15% O₂ or 36.1 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
79. This condition applies prior to the startup of the WMSCP: On and after the date of start-up of any of the three turbines, MSCC must not discharge (per turbine, based on 3-hour rolling average) into the atmosphere NO_x (as NO₂) in excess of the following: 1.) The more stringent of 25.0 ppmvd @ 15% O₂ or 85.0 pounds per hour for loads greater than or equal to 75%; 2.) The more stringent of 42.0 ppmvd @ 15% O₂ or 85 pounds per hour for loads greater than or equal to 35% but less than 75%; 3.) 85 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
80. The hourly (3-hour averaging) emissions must not exceed: 1.) 94 pounds of CO and 85 pounds of NO_x; 2.) All CEMs must be operating during startups and shut downs; 3.) The time, date and duration of each startup and shutdown event must be recorded. The records must include the lbs/hour calculations based on the CEM data. These records must be kept for five years following the date of such events. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
81. Prior to the date of startup and thereafter, the Permittee (MSCC) must install, maintain and operate the following continuous monitoring systems (CEMs) in the exhaust stacks: a.) Continuous monitoring systems to measure stack gas NO_x, CO and O₂ concentrations. The systems must meet EPA monitoring performance specification (40 C.F.R. 60.13 and 40 C.F.R. 60, Appendix B, Performance Specifications 2, 3 and 4); b.) A continuous monitoring system to measure stack gas and natural gas volumetric flow rates. The stack gas flow measurement system must meet EPA Performance Specifications for (40 C.F.R. Part 52, Appendix E). [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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82. The Permittee (MSCC) must maintain a file of all measurements, including continuous monitoring systems evaluations; all continuous monitoring systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; performance and all other information required by 40 C.F.R. 60 Appendices A-B recorded in a permanent form suitable for inspection. The file must be retained for five years following the date of such measurements, maintenance, reports and records. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
83. The Permittee (MSCC) must notify EPA of the date on which demonstration for the continuous monitoring system performance commences (40 C.F.R. 60.13). This date must be no later than 60 days after full load operation but not later than 180 days after startup. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
84. The Permittee (MSCC) must submit a written report of all excess emissions to EPA for every calendar quarter. The quarterly report must include the following: a.) The magnitude of the excess emissions computed in accordance with 40 C.F.R. 60.13(h), any conversion factors used, and the date and time of commencement and compilation of each time period of excess emissions; b.) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of any equipment. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted must also be reported; c.) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments; d.) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information must be stated in the report; and e.) Excess emissions must be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM exceeds the maximum emission limits set forth in the condition with a CO emission limit, where PSD is cited as the basis of the condition or any 3-hour period during which the average emissions of NOx exceed the maximum emission limits set forth in the condition with a NOx emission limit, where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
85. Excess emissions indicated by the CEM system must be considered violations of the applicable emission limit for the purpose of this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
86. The quality assurance project plan used by the Permittee (MSCC) for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 C.F.R. Part 60, Appendix F, must be available upon request to EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
87. The Permittee (MSCC) must keep a monthly record of all fuel uses. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
88. The proposed power plant is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 C.F.R. 60). The owner or operator must meet all applicable requirements of 40 C.F.R. 60 Subparts A and GG of this regulation. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
89. All three turbines will fire natural gas only. The Permittee (MSCC) must only combust pipeline quality natural gas with sulfur content (as S) below 0.75 grains per 100 dry standard cubic feet (dscf). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
90. MSCC shall have legal and operational responsibility and control of all air pollutant emitting activities of the MSCP. This responsibility shall include, but shall not be limited to the following: 1.) Operating and maintaining the project to comply with all federal, state, and local air pollution laws, regulations, orders, and other requirements; 2.) Ensuring the emissions offsets, tradeoffs, or other emission reductions required for this project under permits issued by the U.S. EPA, the District, and/or the California Energy Commission are obtained as required; or 3.) Any violations of any air pollution requirements are the legal responsibility of MSCC, in addition to any other legal responsible entity. Any proposed change to this condition shall require prior written concurrence of the US EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
91. In accordance with the emissions offset plan proposed by the applicant for the District (dated November 12, 1987) and the emissions offset plan for the U.S. EPA (dated July 21, 1987), Aera Energy LLC must not operate the following four steam generators (listed by District permit numbers S-1135-119, S-1135-122, S-1135-123, and S-1135-115) simultaneously with the firing of the MSCP turbines unless one or more of the MSCP turbines is shutdown: Andersen-Goodwin Lease: S-1135-119, S-1135-122, S-1135-123 and Neely Lease: S-1135-115 [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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92. MSCC shall maintain a record of the date(s), time(s), and duration(s) of the shutdown of any of the above mentioned steam generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
93. Aera Energy LLC shall not lease or modify the permit conditions for any of the above generators for use in the Midway Sunset Oil field, unless creditable emissions reductions (as defined in 40 C.F.R. 52.21), at a ratio of at least 1:1, are provided for emissions from those generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
94. Aera Energy LLC shall not modify any of the District Permit to Operate numbers. If any of the above steam generators are issued new Permit to Operate numbers by the District, Aera Energy LLC shall notify the U.S. EPA in writing of this action and shall make such notification upon issuance of a new Permit to Operate number. This letter shall include the original District Permit to Operate number(s) of the subject generator(s) and a copy of the new Permit to Operate issued by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
95. Aera Energy LLC shall notify the U.S. EPA in writing of the intention to sell, or potential sale, of any of the above generators and shall make such notification prior to the District's final action of the re-permitting process associated with the sale of a generators. This letter shall include the following: a.) The subject steam generator as identified by its District Permit to Operate number; b.) The name of the buyer (as identified by the company name) of the steam generator; and c.) An estimated date of the final action of the re-permitting process by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
96. The allowable incidental taking (killing, harming, or harassment) of San Joaquin kit foxes, blunt-nosed leopard lizards, and giant kangaroo rats is confined to the proposed cogeneration plant site one half mile radius around this site (on lands owned or leased by Aera Energy LLC), and associated subject cogeneration plant facilities (including pipelines, transmission lines, temporary equipment stockpiling areas, and access roads) as discussed in the project Application for Certification report (Sun Cogeneration Company and Southern Sierra Energy Company 1985). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
97. MSCC is required to implement the "Agreement on Conditions for Mitigation of the Biological Impacts of the Midway-Sunset Project" as required by the U.S. Fish and Wildlife Service (USFWS) (Memorandum dated March 16, 1987 from the USFWS to the US EPA). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
98. Any endangered species found dead should be turned in to the California Department of Fish and Game for Analysis. MSCC must also report this event to the USFWS. The USFWS may recommend amendment to the existing project actions pending results of the analysis. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
99. All correspondence as required by this permit shall be forwarded to: 1.) Director, Air Division (Attn: Air-3) EPA Region IX 75 Hawthorne Street San Francisco, CA 94105-3901 Tel: (415) 744-1291 Fax: (415) 744-1076; 2.) Chief, Stationary Source Division, California Air Resource Board P.O. Box 2815 Sacramento, CA 95812; and 3.) Air Pollution Control Officer, San Joaquin Valley Unified APCD 2700 M Street, Suite 275 Bakersfield, CA 93301-2370. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
100. Aera Energy LLC is the legal owner of the subject steam generators and of the leases on which the steam generators are located. MSCC is the legal owner of the gas turbine cogeneration facility. MSCC is jointly owned by Sun Cogeneration Limited Partnership (Sun Cogen LP) and San Joaquin Energy Company. Sun Cogen LP is managed and controlled by a wholly owned subsidiary of Aera Energy LLC. (See Condition 104) [PSD SJ-87-01] 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-1135-226-27

EXPIRATION DATE: 05/31/2021

SECTION: 17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

NOMINALLY RATED 78.2 MW COGENERATION UNIT C WITH GE MODEL G7111E FRAME 7E GAS TURBINE ENGINE WITH DRY LOW NOX COMBUSTORS, SELECTIVE CATALYTIC REDUCTION (SCR), AND UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG)

PERMIT UNIT REQUIREMENTS

1. CTG exhaust after the SCR unit shall be equipped with continuously recording emissions monitors dedicated to this unit for NO_x, CO, and O₂. Continuous emissions monitors shall meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
2. CTG shall be equipped with a continuously recording emission monitor preceding the SCR module measuring NO_x concentration for the purposes of calculating ammonia slip. Permittee shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours). The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-control. If the analyzer is out-of-control, the permittee shall take appropriate corrective action and then repeat the CD check. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
3. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO_x and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Ammonia shall be injected whenever the selective catalytic reduction system catalyst temperature exceeds the minimum ammonia injection temperature recommended by the manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Gas turbine engine shall be equipped with fuel consumption monitor recorder accurate to +/- 3%. [District Rule 2201] Federally Enforceable Through Title V Permit
8. CEM for NO_x (as NO₂) and CO shall conform to Rule 1080 specifications. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit
9. HRSG exhaust stack shall be equipped with permanent stack sampling provisions adequate to facilitate testing consistent with EPA test methods. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-226-27 : Jan 13 2022 1:03PM - HONGM

10. Flue gas ducting from engine to HRSG shall have no provisions for introduction of dilution air. [District Rule 1110] Federally Enforceable Through Title V Permit
11. Lube oil cooler/accumulation vent shall be equipped with control device(s) approved by the APCO sufficient to prevent emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Lube oil cooler/accumulator vent(s) shall not have detectable emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Natural gas sulfur content shall not exceed 0.31 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All CEM's shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60 Appendix B. [District Rule 1080] Federally Enforceable Through Title V Permit
15. Quarterly CEM reports shall be submitted to the APCO according to EPA regulations as specified in 40 CFR 60 Appendix B. [District Rule 4001 and District rule 1080, 8.0] Federally Enforceable Through Title V Permit
16. Audits of all monitors shall be conducted by independent laboratory in accordance with EPA guidelines and witnessed by District. Reports shall be submitted to District within 60 days of audits. [District Rule 1080] Federally Enforceable Through Title V Permit
17. All notification, recordkeeping, performance tests, reporting requirements, and compliance testing requirements of Rule 4001 NSPS shall be satisfied. [District Rule 4001] Federally Enforceable Through Title V Permit
18. Operational records including fuel type, fuel characteristics, and consumption shall be maintained and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
19. Accurate records of NO_x (as NO₂) and CO flue gas concentration corrected to 15% O₂ and fuel gas sulfur content shall be maintained and shall be reported as described in Rule 1080 upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
20. Emission rates shall not exceed the following: PM₁₀: 0.010 lb/MMBtu, SO_x (as SO₂): 0.001 lb/MMBtu, NO_x (as NO₂): 0.018 lb/MMBtu, VOC: 0.009 lb/MMBtu, CO: 0.057 lb/MMBtu, and ammonia - 10 ppmvd @ 15%O₂. [District NSR Rule; District Rule 4201; and Kern County Rule 404] Federally Enforceable Through Title V Permit
21. Permittee shall comply with the following emission limit at all times except during periods of start-up, shutdown, or reduced load as defined in Rule 4703: NO_x (as NO₂): 5.0 ppmv, and CO: 25 ppmv, dry @ 15% O₂ corrected to ISO conditions. [40 CFR 60.332(a)(1) & 60.332(a)(2) and District Rule 4703] Federally Enforceable Through Title V Permit
22. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
24. Gas turbine reduced load period is that period not exceeding one hour in duration during which the unit is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
25. Compliance with NO_x, CO and ammonia emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory annually. [District Rules 4703 and 1081] Federally Enforceable Through Title V Permit
26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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27. The following test methods shall be used PM10: EPA method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA method 10 (or 10B) or CARB Method 100, O2: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rule 1081, 40 CFR 60.335 (b), and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
28. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 = $((a-(bxc/1,000,000)) \times 1,000,000 / b) \times d$, where a = ammonia injection rate(lb/hr)/17(lb/lb. mol), b = dry exhaust gas flow rate (lb/hr)/(29(lb/lb. mol), c = change in measured NOx concentration ppmv at 15% O2 across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. [District Rule 4102] Federally Enforceable Through Title V Permit
29. Official test results and field data shall be submitted within 60 days after collection. [District Rule 4703 and District Rule 1081] Federally Enforceable Through Title V Permit
30. Combined annual emissions from units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, S-1135-226 shall not exceed any of the following: PM10 - 262,360 lb/yr, SOx (as SO2) - 24,200 lb/yr, NOx (as NO2) - 464,170 lb/yr, VOC - 236,520 lb/yr, or CO - 1,443,101 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. For units equipped with continuous emissions monitors (CEMs), CEM data may be used in place of calculated emissions. If CEM shows a violation, CEM data shall be used. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
32. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District NSR Rule] Federally Enforceable Through Title V Permit
33. When three gas turbine engines S-1135-224, '-225, and '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 shall be shut down. [District NSR Rule] Federally Enforceable Through Title V Permit
34. When up to two gas turbine engines S-1135-224, '-225, or '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 may be operated. [District NSR Rule] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of operational status of units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, and S-1135-226 on a daily basis. [District Rule 2201] Federally Enforceable Through Title V Permit
36. 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 4703] Federally Enforceable Through Title V Permit
37. CEC emission rates, except during periods of startup, shutdown, or reduced load shall not exceed PM10: 9.98 lb/hr, SOx (as SO2): 0.92 lb/hr, NOx (as NO2): 17.66 lb/hr, VOC: 9.00 lb/hr, and CO: 54.91 lb/hr. [District Rules 2080 and 4703, and 40 CFR 60] Federally Enforceable Through Title V Permit
38. For CEC purposes, emissions during periods of startup and shutdown shall not exceed the following values average over 2 hours: NOx: 140 lb/hr, and CO: 94 lb/hr. [District Rule 2080] Federally Enforceable Through Title V Permit
39. The CEC shall be notified of any changes to the combined annual emission limits for steam generators S-1135-115, -119, -122, and -123, and cogeneration units S-1135-224, -225, and -226, only to the extent to be informed of their impact on the Midway-Sunset Cogeneration Facility. [District Rule 2080] Federally Enforceable Through Title V Permit
40. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit

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41. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [Kern County Rule 108; District Rules 1080 and 4703; 40 CFR 60.7 (b)] Federally Enforceable Through Title V Permit
42. The permittee shall maintain hourly average records of NOx and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by the CO CEM data and the VOC/CO relationship determined by annual CO and VOC source tests of NOx, CO, and ammonia emission concentrations (ppmv @ 15% O2), and hourly, daily, and twelve month rolling. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [Kern County Rule 108 and District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
44. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Kern County Rule 108 and District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
45. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 1081] Federally Enforceable Through Title V Permit
46. Unit shall be fired on a natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333 (a) & (b); 40 CFR 60.334 (c)(2); Kern County Rule 407; and District Rule 4801] Federally Enforceable Through Title V Permit
47. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
48. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using method(s) specified on this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
49. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246, or double GC for H2S and mercaptans. [40 CFR 60.335 (d)] Federally Enforceable Through Title V Permit
50. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334 (b)(2)] Federally Enforceable Through Title V Permit
51. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(a)(2)] Federally Enforceable Through Title V Permit
52. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [40 CFR 60.332 (a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
53. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332 (a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
54. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334 (a),(b),(c) and District Rule 4703, 5.0] Federally Enforceable Through Title V Permit
55. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332 (a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

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56. This unit is a simple combustion turbine as defined in 40 CFR 72.6 (b)(1) and shall not be subject to the requirements of 40 CFR Part 72. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
57. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rules 404, 108, and 108.1. A permit shield is granted from these requirements. [SJVUAPCD Rule 2520, 13.2] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: Kern County Rule 407; District Rules 4801, 4201, 1081, and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332 (c) and (d); 60.334 (b), (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
60. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: District Rules 1080, 7.3 and 4703, 6.2.2; 40 CFR 60.332(a), (b); 60.333(a) and (b), 60.334(a), (b), and (c)(1); 60.335(a), (b) and (c)(2). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
61. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
62. The Permittee (MSCC) must notify EPA by telephone, facsimile, or electronic mail transmission within two (2) working days following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit stated in any conditions where PSD is cited as the basis of the condition. In addition, the Permittee (MSCC) must notify EPA in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in any conditions where PSD is cited as the basis of the condition, and the methods utilized to mitigate emissions and restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause, except as provided for in the conditions where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
63. A malfunction means a sudden and unavoidable breakdown of equipment or of a process beyond the reasonable control of the source. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
64. Emissions in excess of the limits specified in any conditions where PSD is cited as the basis of the condition shall constitute a violation of this permit and may be the subject of enforcement proceedings. [PSD SJ-87-01] Federally Enforceable Through Title V Permit

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65. Affirmative defense: In the context of an enforcement proceeding, emissions which are below the limits set forth in any condition where PSD is cited as the basis of the condition shall not be subject to penalty if the Permittee (MSCC) retains properly signed, contemporaneous operating logs or other relevant evidence and can demonstrate all of the following: i.) A malfunction caused the emissions in excess of the limits in any condition where PSD is cited as the basis of the condition; ii.) The permitted facility, including the air pollution control equipment and process equipment, was being properly operated at the time of the malfunction; iii.) Preventative maintenance was regularly performed in a manner consistent with good practice for minimizing emissions; iv.) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; v.) During the period of the malfunction, the permittee (MSCC) took all reasonable steps to minimize the amount and duration of emissions (including any bypass) that exceeded the emission limits provided in any condition where PSD is cited as the basis of the condition. Reasonable steps to minimize emissions could include, but are not limited to, reducing production to the lowest level practicable, reducing the material feed that results in the increased emissions, and switching to alternative, less polluting fuels. Where repairs were required, repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as possible; and vi.) The permittee (MSCC) complied with the malfunction reporting requirements as specified in the condition where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
66. All emissions, including those associated with a malfunction which may be eligible for an affirmative defense, must be included in all emissions calculations and demonstrations of compliance with mass emission limits (e.g., daily, monthly, and annual emission limits) specified in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
67. This provision is in addition to any emergency or malfunction provision contained in any applicable requirement or elsewhere in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
68. The EPA Regional Administrator, and/or their authorized representative, upon the presentation of credential, must be permitted: (1) to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of the PSD permit SJ-87-01; and (2) at reasonable times to have access to and copy any records required to be kept under the terms and conditions of PSD permit SJ 87-01; and (3) to inspect any equipment, operation, or method required in the PSD permit SJ-87-01; and (4) to sample emissions from source(s). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
69. In the event of any changes in control or ownership of facilities to be constructed or modified, this permit shall be binding on all subsequent owners and operators. The Permittee (MSCC) shall notify the succeeding owner and operator of the existence of the PSD permit SJ-87-01 and its conditions by letter, a copy of which shall be forwarded to the EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
70. The provisions of the PSD permit SJ-87-01 are severable, and , if any provisions of the permit is held invalid, the remainder of the permit must not be affected thereby. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
71. The permittee (MSCC) must construct and operate the proposed power plant in compliance with all other applicable provisions of 40 CFR Parts 52, 60, 62, and 63 and all other applicable Federal, State, and local air quality regulations. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
72. On or before the date of startup (as defined in 40 C.F.R. 60.2) of the Western Midway Sunset Cogeneration Project (WMSCP; PSD Permit No. SJ-00-01) and thereafter the Permittee (MSCC) must install, continuously operate, and maintain the Dry Low NOx (DLN) combustion systems to reduce NOx emissions from each of its three turbines. The Permittee (MSCC) shall also use proper combustion techniques for the control of CO emissions from the equipment at MSCP. [PSD SJ-87-01] Federally Enforceable Through Title V Permit

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73. Within 60 days after achieving the base load, but no later than 180 days after initial startup of all three modified turbines (as defined in 40 C.F.R. 60.2), and annually thereafter (at about the anniversary of the initial performance test), the Permittee (MSCC) must conduct performance tests (as described in 40 C.F.R. 60.8) for NO_x, and CO on the exhaust stack gases. The Permittee (MSCC) must furnish the District, the California Air Resources Board (CARB), and the EPA a written report of the results of such tests. Upon written request from the Permittee (MSCC), and adequate justification, EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
74. Performance tests for the emissions of NO_x, and CO must be conducted and the results reported in accordance with the test methods set forth in 40 C.F.R. 60.8 and 40 C.F.R. 60, Appendix A. The following test methods must be used: a.) Performance tests for the emissions of NO_x must be conducted using EPA Method 1-4 and 7E. b.) Performance tests for the emissions of CO must be conducted using the EPA Methods 1-4 and 10. In lieu of the above-mentioned test methods, equivalent methods may be used with prior written approval from EPA. The Permittee (MSCC) must notify EPA in writing at least 30 days prior to such tests to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
75. For performance test purposes, sampling ports, platforms, and access must be provided by the Permittee on the emission unit exhaust system in accordance with 40 C.F.R. 60.8(e). [PSD SJ 87-01] Federally Enforceable Through Title V Permit
76. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of CO into the atmosphere in excess of the following emission limits per turbine: The more stringent of 25 ppmvd @ 15% O₂ or 55 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
77. This condition applies prior to the startup of the WMSCP: On and after the date of start up any of the three turbines at MSCP must not discharge (per turbine, and based on 3-hour rolling average) into the atmosphere CO in excess of the following of any of: 1.) The more stringent of 52.0 ppmvd @ 15% O₂ or 94 pounds for loads greater than or equal to 75%. 2.) The more stringent of 62.0 ppmvd @ 15% O₂ or 94 pounds for loads greater than or equal to 35% but less than 75%. 3.) 94 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
78. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of NO_x into the atmosphere in excess of the following emission limits per turbine: The more stringent of 10 ppmvd @ 15% O₂ or 36.1 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
79. This condition applies prior to the startup of the WMSCP: On and after the date of start-up of any of the three turbines, MSCC must not discharge (per turbine, based on 3-hour rolling average) into the atmosphere NO_x (as NO₂) in excess of the following: 1.) The more stringent of 25.0 ppmvd @ 15% O₂ or 85.0 pounds per hour for loads greater than or equal to 75%; 2.) The more stringent of 42.0 ppmvd @ 15% O₂ or 85 pounds per hour for loads greater than or equal to 35% but less than 75%; 3.) 85 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
80. The hourly (3-hour averaging) emissions must not exceed: 1.) 94 pounds of CO and 85 pounds of NO_x; 2.) All CEMs must be operating during startups and shut downs; 3.) The time, date and duration of each startup and shutdown event must be recorded. The records must include the lbs/hour calculations based on the CEM data. These records must be kept for five years following the date of such events. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
81. Prior to the date of startup and thereafter, the Permittee (MSCC) must install, maintain and operate the following continuous monitoring systems (CEMs) in the exhaust stacks: a.) Continuous monitoring systems to measure stack gas NO_x, CO and O₂ concentrations. The systems must meet EPA monitoring performance specification (40 C.F.R. 60.13 and 40 C.F.R. 60, Appendix B, Performance Specifications 2, 3 and 4); b.) A continuous monitoring system to measure stack gas and natural gas volumetric flow rates. The stack gas flow measurement system must meet EPA Performance Specifications for (40 C.F.R. Part 52, Appendix E). [PSD SJ-87-01] Federally Enforceable Through Title V Permit

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82. The Permittee (MSCC) must maintain a file of all measurements, including continuous monitoring systems evaluations; all continuous monitoring systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; performance and all other information required by 40 C.F.R. 60 Appendices A-B recorded in a permanent form suitable for inspection. The file must be retained for five years following the date of such measurements, maintenance, reports and records. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
83. The Permittee (MSCC) must notify EPA of the date on which demonstration for the continuous monitoring system performance commences (40 C.F.R. 60.13). This date must be no later than 60 days after full load operation but not later than 180 days after startup. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
84. The Permittee (MSCC) must submit a written report of all excess emissions to EPA for every calendar quarter. The quarterly report must include the following: a.) The magnitude of the excess emissions computed in accordance with 40 C.F.R. 60.13(h), any conversion factors used, and the date and time of commencement and compilation of each time period of excess emissions; b.) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of any equipment. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted must also be reported; c.) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments; d.) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information must be stated in the report; and e.) Excess emissions must be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM exceeds the maximum emission limits set forth in the condition with a CO emission limit, where PSD is cited as the basis of the condition or any 3-hour period during which the average emissions of NOx exceed the maximum emission limits set forth in the condition with a NOx emission limit, where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
85. Excess emissions indicated by the CEM system must be considered violations of the applicable emission limit for the purpose of this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
86. The quality assurance project plan used by the Permittee (MSCC) for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 C.F.R. Part 60, Appendix F, must be available upon request to EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
87. The Permittee (MSCC) must keep a monthly record of all fuel uses. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
88. The proposed power plant is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 C.F.R. 60). The owner or operator must meet all applicable requirements of 40 C.F.R. 60 Subparts A and GG of this regulation. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
89. All three turbines will fire natural gas only. The Permittee (MSCC) must only combust pipeline quality natural gas with sulfur content (as S) below 0.75 grains per 100 dry standard cubic feet (dscf). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
90. MSCC shall have legal and operational responsibility and control of all air pollutant emitting activities of the MSCP. This responsibility shall include, but shall not be limited to the following: 1.) Operating and maintaining the project to comply with all federal, state, and local air pollution laws, regulations, orders, and other requirements; 2.) Ensuring the emissions offsets, tradeoffs, or other emission reductions required for this project under permits issued by the U.S. EPA, the District, and/or the California Energy Commission are obtained as required; or 3.) Any violations of any air pollution requirements are the legal responsibility of MSCC, in addition to any other legal responsible entity. Any proposed change to this condition shall require prior written concurrence of the US EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
91. In accordance with the emissions offset plan proposed by the applicant for the District (dated November 12, 1987) and the emissions offset plan for the U.S. EPA (dated July 21, 1987), Aera Energy LLC must not operate the following four steam generators (listed by District permit numbers S-1135-119, S-1135-122, S-1135-123, and S-1135-115) simultaneously with the firing of the MSCP turbines unless one or more of the MSCP turbines is shutdown: Andersen-Goodwin Lease: S-1135-119, S-1135-122, S-1135-123 and Neely Lease: S-1135-115 [PSD SJ-87-01] 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.

92. MSCC shall maintain a record of the date(s), time(s), and duration(s) of the shutdown of any of the above mentioned steam generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
93. Aera Energy LLC shall not lease or modify the permit conditions for any of the above generators for use in the Midway Sunset Oil field, unless creditable emissions reductions (as defined in 40 C.F.R. 52.21), at a ratio of at least 1:1, are provided for emissions from those generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
94. Aera Energy LLC shall not modify any of the District Permit to Operate numbers. If any of the above steam generators are issued new Permit to Operate numbers by the District, Aera Energy LLC shall notify the U.S. EPA in writing of this action and shall make such notification upon issuance of a new Permit to Operate number. This letter shall include the original District Permit to Operate number(s) of the subject generator(s) and a copy of the new Permit to Operate issued by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
95. Aera Energy LLC shall notify the U.S. EPA in writing of the intention to sell, or potential sale, of any of the above generators and shall make such notification prior to the District's final action of the re-permitting process associated with the sale of a generators. This letter shall include the following: a.) The subject steam generator as identified by its District Permit to Operate number; b.) The name of the buyer (as identified by the company name) of the steam generator; and c.) An estimated date of the final action of the re-permitting process by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
96. The allowable incidental taking (killing, harming, or harassment) of San Joaquin kit foxes, blunt-nosed leopard lizards, and giant kangaroo rats is confined to the proposed cogeneration plant site one half mile radius around this site (on lands owned or leased by Aera Energy LLC), and associated subject cogeneration plant facilities (including pipelines, transmission lines, temporary equipment stockpiling areas, and access roads) as discussed in the project Application for Certification report (Sun Cogeneration Company and Southern Sierra Energy Company 1985). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
97. MSCC is required to implement the "Agreement on Conditions for Mitigation of the Biological Impacts of the Midway-Sunset Project" as required by the U.S. Fish and Wildlife Service (USFWS) (Memorandum dated March 16, 1987 from the USFWS to the US EPA). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
98. Any endangered species found dead should be turned in to the California Department of Fish and Game for Analysis. MSCC must also report this event to the USFWS. The USFWS may recommend amendment to the existing project actions pending results of the analysis. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
99. All correspondence as required by this permit shall be forwarded to: 1.) Director, Air Division (Attn: Air-3) EPA Region IX 75 Hawthorne Street San Francisco, CA 94105-3901 Tel: (415) 744-1291 Fax: (415) 744-1076; 2.) Chief, Stationary Source Division, California Air Resource Board P.O. Box 2815 Sacramento, CA 95812; and 3.) Air Pollution Control Officer, San Joaquin Valley Unified APCD 2700 M Street, Suite 275 Bakersfield, CA 93301-2370. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
100. Aera Energy LLC is the legal owner of the subject steam generators and of the leases on which the steam generators are located. MSCC is the legal owner of the gas turbine cogeneration facility. MSCC is jointly owned by Sun Cogeneration Limited Partnership (Sun Cogen LP) and San Joaquin Energy Company. Sun Cogen LP is managed and controlled by a wholly owned subsidiary of Aera Energy LLC. (See Condition 104) [PSD SJ-87-01] 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-1135-230-4

EXPIRATION DATE: 05/31/2021

SECTION: 17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1 MISCELLANEOUS STEAM DUMPING-ROCK BED MUFFLER OPERATION FOR MIDWAY SUNSET COGENERATION BLOWDOWN

PERMIT UNIT REQUIREMENTS

1. Unit shall receive steam only from cogeneration units S-1135-224, '-225, & '-226. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Steam pit shall not be used for more than 6 hours in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Only treated water shall be used as cogenerators steam generators feed water. [District Rule 2080] Federally Enforceable Through Title V Permit
4. This equipment shall not be used on any day when any of the 52 steam generators and heater treaters curtailed to provide cogeneration project offsets are operated unless these units are operated in accordance with District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall keep accurate daily records indicating hours of steam pit usage. Records shall be kept, maintained, and made readily available to District staff upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. H2S emissions shall not exceed 19 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission sampling limits for the following shall not exceed any of the following: PM-10 - 8.40 lb/hr, SOx (as SO2) - 42.24 lb/hr, or VOC - 1.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-230-4 : Jan 13 2022 1:03PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-231-6

EXPIRATION DATE: 05/31/2021

SECTION: 17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

165 HP DIESEL-FIRED EMERGENCY I.C. ENGINE POWERING A FIREWATER PUMP

PERMIT UNIT REQUIREMENTS

1. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201, 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
4. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
5. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. Permittee may utilize an oil analysis program, as specified in 40 CFR 63.6625(i), to extend the oil change requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
6. The engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
7. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
8. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
9. This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per year. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [17 CCR 93115] Federally Enforceable Through Title V Permit
11. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, and the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] 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: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

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12. 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 Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-231-6 : Jan 13 2022 1:03PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-235-4

EXPIRATION DATE: 05/31/2021

SECTION: 17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

2,520 BHP DIESEL FIRED CATERPILLAR MODEL #3516STD EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. Engine shall be equipped with a turbocharger. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Engine shall be equipped with an aftercooler or intercooler. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The engine shall be operated with the timing retarded four degrees from the manufacturer's standard recommended timing. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The sulfur content of the diesel fuel used shall not exceed 0.0015% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 gr/dscf in concentration at the point of discharge. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on CARB regulated diesel fuel, with a supplier certified sulfur content less than 0.0015% by weight, the operator shall maintain copies of all fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the IC engine is not fired on CARB regulated diesel fuel, with a supplier certified sulfur content less than 0.0015% by weight, then the owner or operator shall determine the sulfur content of each delivery of diesel fuel being fired in the IC engine. The sulfur content shall be determined using ASTM method D 2880-71. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the IC engine is not fired on CARB regulated diesel fuel and the sulfur content of the fuel is determined using the method specified on this permit, the records of fuel sulfur content testing results shall be kept, maintained, and made available to the district upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
11. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
12. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. Permittee may utilize an oil analysis program, as specified in 40 CFR 63.6625(i), to extend the oil change requirement. [40 CFR 63 Subpart ZZZZ] [40 CFR 63 Subpart ZZZZ] 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: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

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13. The engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
14. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
15. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
16. This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 6 hours per year. [District Rules 2201, 4701, 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
17. The permittee shall maintain records of hours of non-emergency operation and of the sulfur content of the diesel fuel used. Such records shall be made available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] 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-1135-266-18

EXPIRATION DATE: 05/31/2021

SECTION: SE24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR STRUTHERS STEAM GENERATOR, WITH A COEN QLN-ULN BURNER, O2 CONTROLLER, FLUE GAS RECIRCULATION AND SO2 SCRUBBER LISTED ON S-1135-26 (METSON 48)

PERMIT UNIT REQUIREMENTS

1. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992, and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
3. This unit is located west of interstate 5 in Kern County. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
4. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
5. Whenever non-PUC/FERC gas is burned in this unit, the scrubber shall operate and shall reduce SO2 emissions by 95% by weight, or shall limit exhaust SO2 to less than or equal to 9 ppmv corrected to 3.0% oxygen. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
6. The total annual emissions from S-1135-26, S-1135-27, S-1135-28, S-1135-266 and S-1547-1089 shall not exceed SOx: 20,951 lb. /yr. or PM10: 32,222 lb. /yr [District Rule 2201]
7. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.001 lb/MMBtu, SOx (as SO2): 0.0016 lb/MMBtu, VOC: 0.0027 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, 4306,] Federally Enforceable Through Title V Permit
8. Emission rates shall not exceed any of the following: PM10: 1.5 lb/day, SOx (as SO2): 2.4 lb/day, VOC: 4.1 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/yr, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

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10. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-266-18 : Jan 13 2022 1:03PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-267-18

EXPIRATION DATE: 05/31/2021

SECTION: NE35 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR STRUTHERS GAS-FIRED STEAM GENERATOR (#49) WITH A COEN MODEL QLN-ULN BURNER WITH FLUE GAS RECIRCULATION (FGR) (KENDON LEASE)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
8. This unit is located west of interstate 5 in Kern County. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
9. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.001 lb/MMBtu, SOx (as SO2): 0.0016 lb/MMBtu, VOC: 0.0027 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, 4306,] Federally Enforceable Through Title V Permit
11. Emission rates shall not exceed any of the following: PM10: 1.5 lb/day, SOx (as SO2): 2.4 lb/day, VOC: 4.1 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/yr, or CO: 55.5 lb/day or 16,425 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-267-18 : Jan 13 2022 1:04PM - HONGM

12. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
13. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0 [District Rule 2520] 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-1135-270-14

EXPIRATION DATE: 05/31/2021

SECTION: NW21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED ROOF OIL TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-149
(ANDERSON/GOODWIN LEASE)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Tank shall be vented only to vapor control system listed on S-1135-149. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 3.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Maximum VOC content of hydrocarbons in tank vapor shall not exceed 20% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.5 psia under all storage conditions. [District Rule 4623, 4.4] 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: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-270-14 : Jan 13 2022 1:04PM - HONGM

13. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
14. This unit is subject to the AG Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-281-17

EXPIRATION DATE: 05/31/2021

SECTION: 16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF SUMP REPLACEMENT TANK WITH VAPOR CONTROL SYSTEM SHARED WITH S-1135-284, -285, -286, -287, -328, '-329, '-330, '-331, '-332, '-333, '-334, AND '-335

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Vapor control system shall discharge to unit S-1135-128. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All associated tanks shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. All tank gauge hatches, thief hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and gas-tight (as defined in Rule 4623) except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a gas-tight (as defined in Rule 4623) condition. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-281-17 : Jan 13 2022 1:04PM - HONGM

13. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compressor suction and knockout drum liquids shall be piped only to vapor-controlled tanks. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. Operator shall monitor vapor control system compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. Tank vapor control system efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor control system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623] Federally Enforceable Through Title V Permit
18. All non-condensable hydrocarbon vapors shall be directed to the vapor control system authorized by permit S-1135-128 either directly through bypass piping, or through tank battery vapor control skid. [District Rule 2201] Federally Enforceable Through Title V Permit
19. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.45 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
20. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
21. 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
22. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
23. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 4623] Federally Enforceable Through Title V Permit
24. Permittee shall retain records of TVP and API gravity testing for District inspection upon request. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rules 4623] Federally Enforceable Through Title V Permit
25. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
26. There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
27. Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor control system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor control system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

28. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
29. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
30. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
31. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
32. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
33. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
34. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
35. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
36. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

37. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
38. Permittee shall keep accurate records of throughput, storage temperature, and TVP of liquids stored in each tank and such records shall be made readily available for District inspection at any time for a time period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
39. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for district inspection upon request for a period of at least five years. [District Rule 2201 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
40. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. The fugitive VOC emissions from this tank and tank vapor control system shall not exceed 3.1 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit
42. Permittee shall maintain with the permit accurate fugitive component counts for tank and the tank vapor control system and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production Screening Value Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
43. 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 2520, 9.4.2] 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-1135-283-8

EXPIRATION DATE: 05/31/2021

SECTION: NW17 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY OPERATION (TEOR) SERVING 90 STEAM ENHANCED WELLS WITH CLOSED CASING VENTS (ANDERSON LEASE)

PERMIT UNIT REQUIREMENTS

1. All valves, fittings and connectors serving closed well vents shall be constructed and maintained in a leak free condition except during periods of actual service and repair. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Total fugitive emission of volatile organic compounds (VOC) from entire operation shall not exceed 16.4 lbm/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Wellhead (polishing rod/stuffing box) fugitive emissions from new wells shall not exceed 0.00778 lbm VOC/well/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts for well vent vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c(Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (Amended June 6, 2011), A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
6. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
7. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-283-8 : Jan 13 2022 1:04PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-284-16

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF RUN TANK #5, WITH VAPOR CONTROL SYSTEM LISTED ON S-1135-281

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All tank gauge hatches, thief hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and gas-tight (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a gas-tight (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] 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: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-284-16 : Jan 13 2022 1:04PM -- HONGM

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.45 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. 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
17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 4623] Federally Enforceable Through Title V Permit
18. Permittee shall retain records of TVP and API gravity testing for District inspection upon request. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rules 4623] Federally Enforceable Through Title V Permit
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
20. There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor control system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor control system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
29. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
30. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
31. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
32. Permittee shall keep accurate records of throughput, storage temperature, and TVP of liquids stored in each tank and such records shall be made readily available for District inspection at any time for a time period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
33. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for district inspection upon request for a period of at least five years. [District Rule 2201 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
34. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
35. The fugitive VOC emissions from this tank shall not exceed 0.1 lb/day [District NSR Rule] 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.

36. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production Screening Value Range emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
37. 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 2520, 9.4.2] 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-1135-285-18

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF LACT TANK #6 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-281

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All tank gauge hatches, thief hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and gas-tight (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a gas-tight (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] 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: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-285-18 : Jan 13 2022 1:04PM -- HONGM

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.45 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. 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
17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 4623] Federally Enforceable Through Title V Permit
18. Permittee shall retain records of TVP and API gravity testing for District inspection upon request. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rules 4623] Federally Enforceable Through Title V Permit
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
20. There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor control system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor control system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
29. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
30. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
31. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
32. Permittee shall keep accurate records of throughput, storage temperature, and TVP of liquids stored in each tank and such records shall be made readily available for District inspection at any time for a time period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
33. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for district inspection upon request for a period of at least five years. [District Rule 2201 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
34. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
35. The fugitive VOC emissions from this tank shall not exceed 0.2 lb/day [District NSR Rule] 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.

36. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production Screening Value Range emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
37. 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 2520, 9.4.2] 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-1135-286-18

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF LACT TANK #7 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-281

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All tank gauge hatches, thief hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and gas-tight (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a gas-tight (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] 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: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-286-18 : Jan 13 2022 1:04PM -- HONGM

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.45 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. 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
17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 4623] Federally Enforceable Through Title V Permit
18. Permittee shall retain records of TVP and API gravity testing for District inspection upon request. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rules 4623] Federally Enforceable Through Title V Permit
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
20. There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor control system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor control system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
29. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
30. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
31. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
32. Permittee shall keep accurate records of throughput, storage temperature, and TVP of liquids stored in each tank and such records shall be made readily available for District inspection at any time for a time period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
33. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for district inspection upon request for a period of at least five years. [District Rule 2201 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
34. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
35. The fugitive VOC emissions from this tank shall not exceed 0.1 lb/day [District NSR Rule] 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.

36. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production Screening Value Range emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
37. 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 2520, 9.4.2] 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-1135-287-18

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF LACT TANK #8 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-281

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All tank gauge hatches, thief hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and gas-tight (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a gas-tight (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] 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: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-287-18 : Jan 13 2022 1:04PM -- HONGM

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.45 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. 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
17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rules 4623] Federally Enforceable Through Title V Permit
18. Permittee shall retain records of TVP and API gravity testing for District inspection upon request. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rules 4623] Federally Enforceable Through Title V Permit
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
20. There shall be no throughput during cleaning of this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Prior to opening the tank to allow tank cleaning the following procedure must be followed. Operate PV valve and vapor control system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor control system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 2 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
29. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
30. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
31. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
32. Permittee shall keep accurate records of throughput, storage temperature, and TVP of liquids stored in each tank and such records shall be made readily available for District inspection at any time for a time period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
33. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for district inspection upon request for a period of at least five years. [District Rule 2201 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
34. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
35. The fugitive VOC emissions from this tank shall not exceed 0.1 lb/day [District NSR Rule] 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.

36. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Oil and Gas Production Screening Value Range emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
37. 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 2520, 9.4.2] 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-1135-293-9

EXPIRATION DATE: 05/31/2021

SECTION: 15 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION SERVING 300 STEAM DRIVE WELLS WITH CASING VENTS TIED TO VAPOR CONTROL SYSTEM INCLUDING, THREE VAPOR CONTROL SKIDS WITH SEPARATOR(S), HEAT EXCHANGER(S), FAN(S), AND COMPRESSOR(S), WITH NON-CONDENSIBLE VAPOR PIPING SHARED WITH TEOR OPERATION S-1135-124 (EXETER LEASE) CONTROLLED BY BALANCED CASING VENT COLLECTION SYSTEM OR RE-INJECTION INTO DOGGR APPROVED DISPOSAL WELL (GLOBE LEASE)

PERMIT UNIT REQUIREMENTS

1. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (June 6, 2011). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of dates and well identifications where steam injection or well stimulation occurs and shall make such records available for District inspection. [District Rule 1070] Federally Enforceable Through Title V Permit
4. Volatile organic compound (VOC) emissions shall not exceed 2.32 lb/hr for casing collection fugitives and 0.33 lb/hr for polished rod fugitives. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 4401] Federally Enforceable Through Title V Permit
6. Well casing vent collection system shall also include non-condensable vapor piping from vapor control skids to re-injection skid. [District Rule 2201] Federally Enforceable Through Title V Permit
7. TEOR vapors shall be injected only in DOGGR-approved gas disposal wells and permittee shall submit a copy of the DOGGR gas disposal well approval to the District prior to injection of any TEOR gas. [District Rule 2201] Federally Enforceable Through Title V Permit
8. When operating with crude oil production well vent open, TEOR vapors can be balanced within the collection and control system or injected into formation using DOGGR-approved disposal wells. Permittee shall cease injection of vapors and notify the District if DOGGR disposal well approval is revoked, denied, terminated, surrendered, or otherwise altered to disallow gas disposal. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit is subject to TEOR Standard Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-293-9 : Jan 13 2022 1:05PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-299-12

EXPIRATION DATE: 05/31/2021

SECTION: NE35 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR GAS-/LPG-FIRED STEAM GENERATOR #50 WITH A COEN MODEL QLN-ULN LOW-NOX BURNER, A FLUE GAS RECIRCULATION SYSTEM AND AN OXYGEN CONTROLLER (KENDON LEASE)

PERMIT UNIT REQUIREMENTS

1. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
3. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.014 lb/MMBtu, SOx (as SO2): 0.001 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, 4306,] Federally Enforceable Through Title V Permit
4. Emission rates shall not exceed any of the following: PM10: 21.0 lb/day, SOx (as SO2): 1.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/yr, or CO: 55.5 lb/day or 16,425 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
6. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-301-15

EXPIRATION DATE: 05/31/2021

SECTION: NW21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

6,700 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-149 (ANDERSON/GOODWIN LEASE)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 2.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Tank shall be vented only to vapor control listed on S-1135-149. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 4.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Maximum VOC content of hydrocarbons in tank vapor shall not exceed 20% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Tank shall be equipped with stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
14. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
15. This unit is subject to the AG Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-302-13

EXPIRATION DATE: 05/31/2021

SECTION: SE22 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (#5) WITH A COEN MODEL QLN-ULN ULTRA LOW NOX BURNER WITH FLUE GAS RECIRCULATION (FGR) (BUENA FE LEASE)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
8. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.0006 lb/MMBtu, VOC: 0.0028 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, 4306,] Federally Enforceable Through Title V Permit
10. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 0.9 lb/day, VOC: 4.2 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/yr, or CO: 55.5 lb/day or 16,425 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-302-13 : Jan 13 2022 1:05PM - HONGM

11. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
12. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] 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-1135-305-13

EXPIRATION DATE: 05/31/2021

SECTION: NW36 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NAT GAS-FIRED STEAM GENERATOR # 52, WITH A COEN QLN-ULN LOW NOX BURNER, WITH FLUE GAS RECIRCULATION, (PRU LEASE)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. This unit is fired only on gaseous fuel and has no provisions of firing on oil or coal. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
8. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.0006 lb/MMBtu, VOC: 0.0028 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, 4306,] Federally Enforceable Through Title V Permit
10. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 0.9 lb/day, VOC: 4.2 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/yr, or CO: 55.5 lb/day or 16,425 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-305-13 : Jan 13 2022 1:05PM - HONGM

12. This unit is subject to Steam Generator General Conditions, Steam Generator Fuel Monitoring Conditions, Source Testing Conditions, and Periodic Monitoring Conditions on the facility wide permit S-1135-0. Deviations from a standard condition shall be reported under the applicable condition in S-1135-0. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-305-13 : Jan 13 2022 1:05PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-322-5

EXPIRATION DATE: 05/31/2021

SECTION: SW24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF WASH TANK T-101, WITH VAPOR RECOVERY (LISTED IN S-1135-70) - METSON LEASE TANK BATTERY

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall vent to vapor recovery system S-1135-70. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 0.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
5. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
10. The Standard Metson Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-70 apply to the equipment operating under this permit. Deviations from a Standard Metson Condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-322-5 : Jan 13 2022 1:05PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-323-6

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-149 - ANDERSON GOODWIN LEASE

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Tank shall vent only to the vapor control skid inlet in permit S-1135-129. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 0.26 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-323-6 : Jan 13 2022 1:05PM -- HONGM

12. This unit has a storage capacity less than 420,000 gallons (1,589.874 cubic meters) and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. This unit is subject to the AG Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-325-5

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK, HANDLING MAXWELL LEASE PRODUCTION, SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W & S LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall be vented only to vapor control system listed on S-1135-173. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
6. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-325-5 : Jan 13 2022 1:05PM -- HONGM

10. The Standard Maxwell Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-173 apply to the equipment operating under this permit. Deviations from a Standard Maxwell Condition shall be reported under the applicable condition in S-1135-173. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-325-5 : Jan 13 2022 1:05PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-326-5

EXPIRATION DATE: 05/31/2021

SECTION: SW24 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:

3,000 BBL FIXED ROOF WASH TANK T-102, WITH VAPOR RECOVERY (LISTED IN S-1135-70) - METSON LEASE TANK BATTERY

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall only vent to vapor control listed on S-1135-70. [District Rule]
3. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 0.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
5. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
10. The Standard Metson Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-70 apply to the equipment operating under this permit. Deviations from a Standard Metson Condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-326-5 : Jan 13 2022 1:06PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-327-4

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

905 BBL FWKO VESSEL (V-100) CONNECTED TO VAPOR RECOVERY SYSTEM LISTED ON S-1135-70

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, vessel shall vent only to the vapor control system listed on S-1135-70. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions from the components in gas service on the vessel calculated using EPA's Protocol for Equipment Leak Emission Estimates, Table 2-4, Oil and Gas Production Operations Average Emission Factors, shall not exceed 1.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When disconnected from the vapor control system for maintenance/repairs/upset conditions, vessel 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 2201] Federally Enforceable Through Title V Permit
5. Permittee shall keep accurate records of TVP of liquids stored in the tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. VOC content of THC in collected vapors shall be sampled annually. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Vessel shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
10. The Standard Metson Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-70 apply to the equipment operating under this permit. Deviations from a Standard Metson Condition shall be reported under the applicable condition in S-1135-70. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-327-4 : Jan 13 2022 1:06PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-328-3

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL FLOW SPLITTER PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-328-3 : Jan 13 2022 1:06PM -- HONGM

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-329-3

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL FWKO PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-329-3 : Jan 13 2022 1:06PM -- HONGM

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-330-3

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL "GAS BUSTER" PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-330-3 : Jan 13 2022 1:06PM -- HONGM

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-331-3

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL UNFIRED TREATER #1 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-332-3

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL UNFIRED TREATER #2 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-332-3 : Jan 13 2022 1:06PM -- HONGM

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-333-3

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL UNFIRED TREATER #4 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-333-3 : Jan 13 2022 1:07PM -- HONGM

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-334-3

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL UNFIRED TREATER #6 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-334-3 : Jan 13 2022 1:07PM -- HONGM

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-335-3

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL UNFIRED TREATER #7 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The pressure vessel shall only vent to the vapor control system listed on permit S-1135-281. [District Rule 2080] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
9. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
13. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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 2080] 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-1135-336-4

EXPIRATION DATE: 05/31/2021

SECTION: SW16 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

1,200 BBL UNFIRED TREATER PRESSURE VESSEL (B-101D) VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1547-865 (ALBERTA SHALE)

PERMIT UNIT REQUIREMENTS

1. The pressure vessel shall only vent to the vapor control system listed on permit S-1547-865. [District Rule 2080] Federally Enforceable Through Title V Permit
2. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
4. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2080] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
7. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

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9. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit
10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit
12. 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 2080] 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-1135-337-5

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

3,000 BBL (126,000 GALLON) FIXED ROOF STOCK TANK ID# WS-04, HANDLING MAXWELL LEASE PRODUCTION, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)

PERMIT UNIT REQUIREMENTS

1. Tank shall be connected to vapor control when receiving production from TEOR wells operated with closed casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Except when disconnected from the vapor control system for maintenance/repairs/upset conditions, tank shall be vented only to vapor control system listed on S-1135-173. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component counts for tank and associated vapor control systems and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999) Screening Range emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When disconnected from the vapor control system for maintenance/repairs/upset conditions, 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
6. Permittee shall keep accurate records of TVP of liquids stored in each tank. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
7. Tank shall not be required to be served by vapor control system during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 360 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

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10. The Standard Maxwell Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions specified in S-1135-173 apply to the equipment operating under this permit. Deviations from a Standard Maxwell Condition shall be reported under the applicable condition in S-1135-173. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-339-3

EXPIRATION DATE: 05/31/2021

SECTION: 21 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

3,000 BBL REJECT TANK CONNECTED TO THE VAPOR CONTROL SYSTEM LISTED ON TANK S-1135-149
(ANDERSON/GOODWIN LEASE)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The fugitive VOC emissions from this tank and the vapor control system shall not exceed 1.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Maximum VOC content of hydrocarbons in tank vapor shall not exceed 20% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall measure VOC content of tank vapor annually using EPA Method 18, 25, 25a, 25b, or ASTM D-1945. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall maintain with the permit accurate fugitive component counts for tank and resulting emissions calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit
11. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not exceeding 0.5 psia under all storage conditions. [District Rule 4623, 4.4] 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: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

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12. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Tank shall be vented only to vapor control listed on S-1135-149. [District Rule 2201] Federally Enforceable Through Title V Permit
14. This unit is subject to the AG Dehy Vapor Recovery, Inspection, Testing, and Tank Cleaning Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-345-2

EXPIRATION DATE: 05/31/2021

SECTION: 9 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF CRUDE OIL STORAGE TANK #251296 WITH P/V VENT

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. Tank throughput shall not exceed 500 Bbl. per day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
6. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
8. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain monthly records of average daily crude oil throughput. Monthly measurement of the tank level is an approved method of determining the average daily throughput. [District Rule 2201]
10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-346-2

EXPIRATION DATE: 05/31/2021

SECTION: nw21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

1,200 BBL FREE WATER KNOCK OUT (FWKO) #1 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR ' -149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-347-2

EXPIRATION DATE: 05/31/2021

SECTION: nw21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

1,000 BBL FLOW SPLITTER VESSEL CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR S-149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-347-2 : Jan 13 2022 1:07PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-348-2

EXPIRATION DATE: 05/31/2021

SECTION: nw21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

700 BBL FLOW GAS BUSTER VESSEL CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-348-2 : Jan 13 2022 1:08PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-349-2

EXPIRATION DATE: 05/31/2021

SECTION: nw21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #1 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-350-2

EXPIRATION DATE: 05/31/2021

SECTION: ne21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #2 CONNECTED TO VAPOR RECOVERY SYSTEM CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-350-2 : Jan 13 2022 1:08PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-351-2

EXPIRATION DATE: 05/31/2021

SECTION: nw21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #3 CONNECTED TO VAPOR RECOVERY SYSTEM CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] 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-1135-353-2

EXPIRATION DATE: 05/31/2021

SECTION: nw21 **TOWNSHIP:** 31s **RANGE:** 22e

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #5 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-353-2 : Jan 13 2022 1:08PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-354-2

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #6 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR S-1135-149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-354-2 : Jan 13 2022 1:08PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-355-2

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #7 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR S-1135-149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-355-2 : Jan 13 2022 1:08PM -- HONGM

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1135-356-2

EXPIRATION DATE: 05/31/2021

EQUIPMENT DESCRIPTION:

1,000 BBL TREATER VESSEL #8 CONNECTED TO THE VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '149 (ANDERSON-GOODWIN)

PERMIT UNIT REQUIREMENTS

1. When tank and vapor control system are idle (non-operational) oil inlet valve to tank shall remain closed. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the tank as idle or operational. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
3. When tank and VCS are idle, the tank shall vent through a PV relief valve set to within 10% of maximum allowable pressure of the tank, no oil shall be introduced into tank, and the TVP of residual (standing) oil shall not exceed 0.05 psia. Prior to introducing crude oil or produced water, the VCS must be reactivated and shall have a VOC control efficiency of at least 99%. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. When tank and vapor control system are idle, only biennial true vapor pressure measurements shall be taken. No additional monitoring and recordkeeping is required. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. When tank and vapor control system are idle, VOC emission rate from the tank shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Records of tank throughput when idle, all dates and times that this unit is idle and operational, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. 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
8. This unit is subject to the AG Dehy Inspection and Testing Conditions on Permit S-1135-149. Deviations from a standard condition shall be reported under the applicable condition in S-1135-149. [District Rule 2520] Federally Enforceable Through Title V Permit

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

ATTACHMENT C

Detailed Summary List of Facility Permits

Detailed Facility Report
For Facility=1135
Sorted by Facility Name and Permit Number

AERA ENERGY LLC HEAVY OIL WESTERN STATIONARY SOURCE MIDWAY-SUNSET KERN COUNTY, CA	FAC #	S 1135	TYPE:	TitleV	EXPIRE ON:	05/31/2021
	STATUS:	A	TOXIC ID:	50002	AREA:	105 / 31
	TELEPHONE:	6616655279			INSP. DATE:	10/22

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-1-25	31,500 kBtu/hr burner	3020-02 H	1	1,238.00	1,238.00	D	DORMANT 31.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #14, DIS# 9175-68, W/ NORTH AMERICAN BURNER AND OPTIONAL SO2 SCRUBBER (WILBERT LEASE)
S-1135-2-5	4,200,000 BTU/HR	3020-02 F	1	731.00	731.00	D	4.2 MMBTU/HR OIL/NATURAL GAS FIRED HEATER TREATER - WILBERT LEASE. CANCELLED BY APPLICANT ON 1995 RENEWALS, ANNUAL FEES NOT PAID, MRB.
S-1135-3-26	49 kgal	3020-05 C	1	165.00	165.00	A	HEATER TREATER #1 SERVED BY VAPOR RECOVERY SYSTEM LISTED ON S-1135-70, AND PERMIT EXEMPT BURNER (NATURAL GAS-FIRED, 5.0 MMBTU/HR OR LESS) (METSON LEASE)
S-1135-4-21	25,200 kBtu/hr burner	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #30, DIS# 12055 70 (PRU LEASE)
S-1135-5-38	62 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #41 DIS #11867-75 WITH A COEN ULN LOW-NOX BURNER WITH OPTIONAL-USE FGR (BUENA FE LEASE)
S-1135-6-36	62.5 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	A	62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR #43 WITH A COEN QLN-JLN LOW NOX BURNER AND FLUE GAS RECIRCULATION (KENDON LEASE)
S-1135-7-6	8,400,000 BTU/HR	3020-02 G	1	980.00	980.00	D	8.4 MMBTU/HR OIL/NATURAL GAS FIRED HEATER TREATER TULARE #2 - MAXWELL
S-1135-8-35	25.2 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR NATURAL GAS FIRED NATIONAL STEAM GENERATOR #17, DIS# 9236-68, WITH NORTH AMERICAN BURNER (MAXWELL LEASE)
S-1135-9-33	25.2 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #18, DIS# 9237-68 (MAXWELL LEASE)
S-1135-10-32	25.2 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #19, DIS# 9238 68 (MAXWELL LEASE)
S-1135-11-6	8.4 MMBTU/HR HEATER TREATER	3020-02 G	1	980.00	980.00	D	8.4 MMBTU/HR OIL/NATURAL GAS FIRED HEATER TREATER #6 - MAXWELL
S-1135-12-40	62.5 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #45 WITH A COEN ULN LOW-NOX BURNER WITH OPTIONAL-USE FGR AND OPTIONAL SO2 SCRUBBER (KENDON LEASE)
S-1135-13-32	62.5 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #44 WITH COEN QLN-ULN 3.2 BURNER (WILBERT LEASE)
S-1135-14-5	8.4 MMBTU/HR HEATER TREATER	3020-03 G	1	1,238.00	1,238.00	D	8.4 MMBTU/HR OIL/NATURAL GAS FIRED HEATER TREATER #5 WITH NORTH AMERICAN 6131-C-CR 8.4 BURNER - MAXWELL

Detailed Facility Report

For Facility=1135

Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-15-30	2.5 MW	3020-08A C	1	1,840.00	1,840.00	D	NONCOMPLIANT DORMANT 2.5 MW COMBINED CYCLE GAS TURBINE TOPPING CYCLE COGENERATION UNIT TG-1 INCLUDING SOLAR TURBINE INC. CENTAUR MODEL GSC-400G, 38.5 MMBTU/HR GAS FIRED TURBINE ENGINE AND 2.5 MW ELECTRICAL GENERATOR (MAXWELL LEASE)
S-1135-16-30	2.5 MW	3020-08A C	1	1,840.00	1,840.00	D	NONCOMPLIANT DORMANT 2.5 MW COMBINED CYCLE GAS TURBINE TOPPING CYCLE COGENERATION UNIT TG-2 INCLUDING A SOLAR TURBINE INC. CENTAUR MODEL GSC-400G, 38.5 MMBTU/HR GAS FIRED TURBINE ENGINE AND A 2.5 MW ELECTRICAL GENERATOR (MAXWELL LEASE)
S-1135-17-19	175 Wells	3020-09 A	175	11.23	1,965.25	A	STEAM-ENHANCED CRUDE OIL PRODUCTION WELL OPERATION, SERVING 175 STEAM ENHANCED WELLS, INCLUDING PIPING TO INCINERATING STEAM GENERATORS, FOR REINJECTION OF NONCONDENSIBLE VAPORS, OR FOR BALANCING OF WELL VENTS.
S-1135-18-18	140 Wells	3020-09 A	140	11.23	1,572.20	A	STEAM-ENHANCED CRUDE OIL PRODUCTION WELL OPERATION SERVING UP TO 140 STEAM ENHANCED WELLS, INCLUDING PIPING FOR BALANCING OF WELL VENTS OR CLOSED CASING VENTS FOR BALANCING OF WELL VENTS OR CLOSED CASING VENTS (WILBERT LEASE)
S-1135-19-6	130 WELLS	3020-09 A	13	11.23	145.99	D	130 WELL CASING COLLECTION SYSTEM. PTO CANCELLED UPON IMPLEMENTATION OF PROJECT 930245 (COMBINE WITH OXFORD, S-1135 127-8 TEOR). 8/31/1993 MRB
S-1135-20-31	405 Wells	3020-09 A	405	11.23	4,548.15	A	STEAM ENHANCED CRUDE OIL PRODUCTION WELL OPERATION SERVING 405 STEAM ENHANCED WELLS INCLUDING HEAT EXCHANGER(S), GAS/LIQUID SEPARATOR(S), VAPOR COMPRESSOR(S) AND ASSOCIATED PIPING (KENDON/NATIONAL)
S-1135-21-13	153 Wells	3020-09 A	153	11.23	1,718.19	A	STEAM-ENHANCED CRUDE OIL PRODUCTION OPERATION SERVING UP TO 153 STEAM-ENHANCED WELLS, INCLUDING PIPING FOR BALANCING OF WELL VENTS OR CLOSED CASING VENTS (BUENA FE FEE LEASE)
S-1135-22-12	90 Wells	3020-09 A	90	11.23	1,010.70	A	STEAM-ENHANCED CRUDE OIL PRODUCTION WELL OPERATION SERVING UP TO 90 STEAM ENHANCED WELLS, INCLUDING PIPING FOR BALANCING OF WELL VENTS OR CLOSED CASING VENTS (MOCAL LEASE)
S-1135-23-9	25,200,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #23, DIS# 20628-66, WITH NORTH AMERICAN BURNER AND SO2 SCRUBBER - WILBERT. CANCELLED BY APPLICANT ON 1995 RENEWALS, MRB.
S-1135-24-32	25.2 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #25, DIS# 26916 66, WITH NORTH AMERICAN BURNER, FLUE GAS RECIRCULATION, AND SO2 SCRUBBER (KENDON LEASE)
S-1135-25-11	25,200,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	INOPERABLE 25.2 MMBTU/HR STEAM GENERATOR WITH SO2 SCRUBBER - METSON

Detailed Facility Report

For Facility=1135

Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-26-44	62.5 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #32, DIS# 12051 71, WITH A COEN ULN 3.2 LOW-NOX BURNER AND VENTED TO AN OPTIONAL SO2 SCRUBBER SHARED WITH STEAM GENERATORS LISTED ON S-1135-27, '-28 AND '-266 (METSON LEASE)
S-1135-27-36	25.2 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #27, DIS# 12069-69, WITH NORTH AMERICAN BURNER, FLUE GAS RECIRCULATION, AND OPTIONAL SO2 SCRUBBER LISTED ON S-1135-26 (METSON LEASE)
S-1135-28-36	25.2 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #26, DIS# 12071-69, WITH NORTH AMERICAN BURNER, FLUE GAS RECIRCULATION, AND OPTIONAL SO2 SCRUBBER LISTED ON S-1135-26 (METSON LEASE)
S-1135-29-32	25 kgal	3020-05 C	1	165.00	165.00	A	HEATER TREATER (#2) SERVED BY VAPOR RECOVERY SYSTEM LISTED ON S-1135-70 AND PERMIT EXEMPT BURNER (NATURAL GAS-FIRED, 5.0 MMBTU/HR OR LESS) (METSON LEASE)
S-1135-30-19	30 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	D	30 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR #MO-2, DIS# 19961-68, WITH NORTH AMERICAN 5131-FACR BURNER - MOCAL LEASE
S-1135-32-0	25,200,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR NATIONAL STEAM GENERATOR #BF1
S-1135-33-1	25,200,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR STRUTHERS STEAM GENERATOR WITH NORTH AMERICAN BURNER ASSEMBLY, INCLUDING NON-CONDENSABLE PIPING FROM TEOR S- 1135-21, SHARED WITH STEAM GENERATOR S-1135-34. THIS PTO SURRENDERED WITH PROJECT 990991 10/8/99 - MRB.
S-1135-34-6	25,200 KBTU/HR	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR STRUTHERS STEAM GENERATOR WITH NORTH AMERICAN BURNER ASSEMBLY, TELEDYNE OXYGEN CONTROLLER, INCLUDING NON- CONDENSIBLE PIPING FROM TEOR SYSTEM S-1135-21, SHARED WITH STEAM GENERATOR S-1135-33.
S-1135-36-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF SHIPPING TANK, P/O #4007772, PRU LEASE
S-1135-37-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF SHIPPING TANK, P/O #4007773, PRU LEASE
S-1135-38-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF SHIPPING TANK P/O #4007774, PRU LEASE
S-1135-39-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF WASH TANK P/O#4007775, PRU LEASE
S-1135-40-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF WATER TANK P/O#4007776, PRU LEASE
S-1135-41-0	10,500 GALLONS	3020-05 B	1	113.00	113.00	D	10,500 GALLON FIXED ROOF SKIM TANK P/O#4007777, PRU LEASE
S-1135-42-0	21,000 GALLONS	3020-05 C	1	165.00	165.00	D	21,000 GALLON FIXED ROOF FUEL TANK P/O#4007778, PRU LEASE

Detailed Facility Report

For Facility=1135

Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-43-3	126,924 GALLONS	3020-05 E	1	296.00	296.00	D	126,924 GALLON FIXED ROOF WATER TANK P/O#4007779, WITH VAPOR CONTROL SYSTEM (KENDON LEASE)
S-1135-44-1	214,452 GALLONS	3020-05 E	1	296.00	296.00	D	214,452 GALLON FIXED ROOF WATER TANK P/O#4007780, WITH VAPOR CONTROL SYSTEM (KENDON LEASE)
S-1135-45-1	84,588 GALLONS	3020-05 D	1	223.00	223.00	D	84,588 GALLON FIXED ROOF LACT TANK P/O# 4007781 WITH VAPOR CONTORL SYSTEM (KENDON LEASE)
S-1135-46-1	84,588 GALLONS	3020-05 D	1	223.00	223.00	D	84,588 GALLON FIXED ROOF REJECT TANK P/O#4007782 WITH VAPOR CONTROL SYSTEM (KENDON LEASE)
S-1135-47-1	84,588 GALLONS	3020-05 D	1	223.00	223.00	D	84,588 GALLON FIXED ROOF REJECT TANK P/O#4007783 WITH VAPOR CONTROL SYSTEM (KENDON LEASE)
S-1135-48-0	42,000 GALLONS	3020-05 C	1	165.00	165.00	D	42,000 GALLON FIXED ROOF FUEL TANK P/O#4007784, KENDON LEASE
S-1135-49-0	8,400 GALLONS	3020-05 B	1	113.00	113.00	D	8,400 GALLON FIXED ROOF TEST TANK P/O#4007735, KENDON LEASE
S-1135-50-1	21,000 GALLONS	3020-05 C	1	165.00	165.00	D	21,000 GALLON FIXED ROOF SKIM TANK P/O#4007736 WITH VAPOR CONTROL SYSTEM (KENDON LEASE)
S-1135-51-5	68,544 GALLON	3020-05 D	1	223.00	223.00	D	68,544 GALLON FIXED ROOF EMERGENCY STORAGE TANK (P/O#4007787) EQUIPPED WITH PRESSURE-VACUUM RELIEF VALVE LOCATED AT MIDWAY SUNSET FIELD, WILBERT FEE.
S-1135-52-5	68,544 GALLON	3020-05 D	1	223.00	223.00	D	68,544 GALLON FIXED ROOF EMERGENCY STORAGE TANK (P/O#4007788) EQUIPPED WITH PRESSURE-VACUUM RELIEF VALVE LOCATED AT MIDWAY SUNSET FIELD, WILBERT FEE.
S-1135-53-5	68,544 GALLON	3020-05 D	1	223.00	223.00	D	68,544 GALLON FIXED ROOF EMERGENCY STORAGE TANK (P/O#4007789, ID#10745) EQUIPPED WITH PRESSURE-VACUUM RELIEF VALVE LOCATED AT MIDWAY SUNSET FIELD, WILBERT FEE.
S-1135-54-0	84,588 GALLONS	3020-05 D	1	223.00	223.00	D	84,588 GALLON FIXED ROOF WASTE TANK P/O#4007790, WILBERT LEASE
S-1135-55-1	84,588 GALLONS	3020-05 D	1	223.00	223.00	D	84,588 GALLON FIXED ROOF WASTE TANK (P/O#4007791) EQUIPPED WITH VAPOR RECOVERY. (WILBERT LEASE)
S-1135-56-1	45,486 GALLONS	3020-05 C	1	165.00	165.00	D	45,486 GALLON FIXED ROOF STORAGE TANK (P/O#4007792) EQUIPPED WITH VAPOR RECOVERY. (WILBERT LEASE)
S-1135-57-0	45,486 GALLONS	3020-05 D	1	223.00	223.00	D	45,486 GALLON FIXED ROOF WASH TANK P/O#4007793, WILBERT LEASE
S-1135-58-0	21,000 GALLONS	3020-05 C	1	165.00	165.00	D	21,000 GALLON FIXED ROOF SKIM TANK P/O#4007794, WILBERT LEASE
S-1135-59-1	51,198 GALLON TANK	3020-05 D	1	223.00	223.00	D	51,198 GALLON FIXED ROOF STORAGE TANK. MAXWELL LEASE
S-1135-60-2	225,624 GALLONS	3020-05 E	1	296.00	296.00	D	225,624 GALLON REJECT TANK. MAXWELL LEASE. CANCELLED BY APPLICANT IN LIEU OF 1995 RENEWAL. MRB
S-1135-61-2	216,594 GALLON STORAGE TANK	3020-05 E	1	296.00	296.00	D	216,594 GALLON FIXED ROOF STORAGE TANK. MAXWELL LEASE.

Detailed Facility Report

For Facility=1135

Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-62-1	84,588 GALLON STORAGE TANK	3020-05 D	1	223.00	223.00	D	84,588 GALLON FIXED ROOF WATER TANK. MAXWELL LEASE.
S-1135-63-2	84,588 GALLON STORAGE TANK	3020-05 D	1	223.00	223.00	D	84,588 GALLON FIXED ROOF REJECT TANK T103. MAXWELL LEASE.
S-1135-64-1	45,484 GALLON STORAGE TANK	3020-05 C	1	165.00	165.00	D	45,486 GALLON FIXED ROOF LACT TANK #8484. MAXWELL LEASE.
S-1135-65-1	51,198 GALLON STORAGE TANK	3020-05 D	1	223.00	223.00	D	51,198 GALLON FIXED ROOF WASH TANK. MAXWELL LEASE.
S-1135-66-2	142,968 GALLON STORAGE TANK	3020-05 E	1	296.00	296.00	D	142,968 GALLON FIXED ROOF WATER TANK T700. MAXWELL LEASE.
S-1135-67-2	142,968 GALLON STORAGE TANK	3020-05 E	1	296.00	296.00	D	142,968 GALLON FIXED ROOF STORAGE TANK #T200. MAXWELL LEASE.
S-1135-68-1	45,486 GALLON STORAGE TANK	3020-05 C	1	165.00	165.00	D	45,486 GALLON FIXED ROOF SLOP TANK #T300. MAXWELL LEASE.
S-1135-69-2	126,924 GALLON STORAGE TANK	3020-05 E	1	296.00	296.00	D	126,924 GALLON FIXED ROOF WASH TANK. MAXWELL LEASE.
S-1135-70-19	43,470 Gallons	3020-05 C	1	165.00	165.00	A	43,470 GALLON FIXED ROOF REJECT TANK T-110, WITH SHARED VAPOR RECOVERY SYSTEM - METSON LEASE TANK BATTERY
S-1135-71-11	84,000 Gallons	3020-05 D	1	223.00	223.00	A	84,000 GALLON FIXED ROOF LACT TANK T-100 WITH VAPOR RECOVERY (LISTED ON S-1135-70) - METSON LEASE TANK BATTERY
S-1135-72-11	210,00 Gallons	3020-05 E	1	296.00	296.00	A	5,000 BBL FIXED ROOF STANDBY TANK T-120, WITH VAPOR RECOVERY SYSTEM (LISTED ON S-1135-70) - METSON LEASE TANK BATTERY
S-1135-73-1	43,470 GALLONS	3020-05 C	1	165.00	165.00	D	43,470 GALLON FIXED ROOF FUEL TANK P/O#4007836, METSON LEASE
S-1135-74-1	43,470 GALLONS	3020-05 C	1	165.00	165.00	D	43,470 GALLONS FIXED ROOF SKIM TANK ID#103, WITH VAPOR RECOVERY (LISTED IN S-1135-70) - METSON LEASE TANK BATTERY
S-1135-75-7	210,000 GALLONS	3020-05 E	1	296.00	296.00	D	210,000 GALLON FIXED ROOF WASH TANK M-101, WITH VAPOR RECOVERY (LISTED ON S-1135-70) - METSON LEASE TANK BATTERY
S-1135-76-7	210,000 GALLONS	3020-05 E	1	296.00	296.00	D	210,000 GALLON FIXED ROOF WASH TANK M-102, WITH VAPOR RECOVERY (LISTED ON S-1135-70) - METSON LEASE TANK BATTERY
S-1135-77-2	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF WATER TANK P/O#4007840, METSON LEASE
S-1135-78-2	210,000 GALLONS	3020-05 E	1	296.00	296.00	D	210,000 GALLON FIXED ROOF STANDBY TANK P/O#4007841, METSON LEASE
S-1135-79-0	43,470 GALLONS	3020-05 C	1	165.00	165.00	D	43,470 GALLON FIXED ROOF FUEL TANK P/O#4007842, METSON LEASE***TANK REMOVED PER COMPLIANCE, CANCELLED ON 7/21/99, DBT***
S-1135-80-0	21,000 GALLONS	3020-05 C	1	165.00	165.00	D	21,000 GALLON FIXED ROOF SKIM TANK ID#SOUTH, METSON LEASE ***TANK REMOVED PER COMPLIANCE, CANCELLED ON 7/21/99,DBT***
S-1135-81-0	10,500 GALLONS	3020-05 B	1	113.00	113.00	D	10,500 GALLON FIXED ROOF SKIM TANK ID#NORTH, METSON LEASE ***TANK REMOVED PER COMPLIANCE, CANCELLED ON 7/21/99,DBT***
S-1135-82-11	84,000 gallons	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF STANDBY TANK #2179 (BUENA FE FEE)

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-83-9	84,000 gallons	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF STANDBY TANK #2180 (BUENA FE FEE)
S-1135-84-2	126,000 GALLONS	3020-05 E	1	296.00	296.00	D	52,500 GALLON FIXED ROOF WASH TANK (P/O#4007847) EQUIPPED WITH VAPOR RECOVERY. (BUENA FE LEASE)
S-1135-85-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	42,000 GALLON FIXED ROOF WASH TANK P/O#4007848, BUENA FE LEASE
S-1135-86-2	42,000 GALLONS	3020-05 C	1	165.00	165.00	D	42,000 GALLON FIXED ROOF SKIM TANK (P/O#4007849) EQUIPPED WITH VAPOR RECOVERY. (BUENA FE LEASE)
S-1135-87-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF WATER TANK P/O#4007850, BUENA FE LEASE
S-1135-88-0	10,500 GALLONS	3020-05 B	1	113.00	113.00	D	10,500 GALLON FIXED ROOF TEST #1 TANK ID#482, BUENA FE LEASE
S-1135-89-1	21,000 GALLONS	3020-05 C	1	165.00	165.00	D	21,000 GALLON FIXED ROOF SKIM TANK P/O#4007852, BUENA FE LEASE
S-1135-90-0	10,500 GALLONS	3020-05 B	1	113.00	113.00	D	10,500 GALLON FIXED ROOF TEST #6 TANK ID#481, BUENA FE LEASE
S-1135-91-5	68,544 GALLONS	3020-05 D	1	223.00	223.00	D	68,544 GALLON EMERGENCY USE FIXED ROOF TANK ID #133170 WITH P/V VENT
S-1135-92-5	68,544 GALLONS	3020-05 D	1	223.00	223.00	D	68,544 GALLON EMERGENCY USE FIXED ROOF TANK ID #133169 WITH P/V VENT
S-1135-93-6	84,588 GALLONS	3020-05 D	1	223.00	223.00	D	84,588 GALLON EMERGENCY USE FIXED ROOF TANK #133171 WITH P/V VENT
S-1135-94-1	43,470 GALLONS	3020-05 C	1	165.00	165.00	D	43,470 GALLON FIXED ROOF WASH #2 TANK P/O#4007954, WITH VAPOR RECOVERY SYSTEM SHARED WITH TANKS S-1135-95 AND '-96. MOCAL LEASE TANK BATTERY
S-1135-95-1	43,470 GALLONS	3020-05 C	1	165.00	165.00	D	43,470 GALLON FIXED ROOF WASH TANK P/O#4007955, WITH VAPOR RECOVERY SYSTEM SHARED WITH TANKS S-1135-94 AND '-96. MOCAL LEASE TANK BATTERY
S-1135-96-1	8,400 GALLONS	3020-05 B	1	113.00	113.00	D	8,400 GALLON FIXED ROOF SKIM TANK P/O#4007956, WITH VAPOR RECOVERY SYSTEM SHARED WITH TANKS S-1135-94 AND '-95. MOCAL LEASE TANK BATTERY.
S-1135-97-5	16 UNCONTROLLED WELLS	3020-09 A	16	11.23	179.68	D	16 UNCONTROLLED CYCLICLY STEAMED OIL WELLS HEAVY OIL WESTERN ***CANCELLED PER LETTER FROM PERMITTEE. ALREADY PERMITTED FOR 40 CYCLICS IN H.O.W. PER S-1547-838-1. DBT, 4/19/99***
S-1135-98-0	8,400,000 BTU/HR	3020-02 G	1	980.00	980.00	D	8,400,000 BTU/HR HEATER TREATER
S-1135-99-11	62,500,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR OIL/NATURAL GAS/VAPORRECOVERY GAS FIRED STEAM GENERATOR #1 WITH SO2 SCRUBBER - MAXWELL
S-1135-100-0	6,300,000 BTU/HR	3020-02 G	1	980.00	980.00	D	6,300,000 BTU/HR FREE WATER KNOCKOUT VESSEL
S-1135-102-0	8,400,000 BTU/HR	3020-02 G	1	980.00	980.00	D	8,400,000 BTU/HR HEATER TREATER

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-103-1	8,400,000 BTU/HR	3020-02 G	1	980.00	980.00	D	8,400,000 BTU/HR HEATER TREATER
S-1135-104-15	62,500,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR OIL/NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #7 WITH PCC BURNER AND SO2 SCRUBBER - MAXWELL
S-1135-105-8	25,000,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR OIL/NATURAL GAS FIRED STEAM GENERATOR #3 WITH SO2 SCRUBBER - W & S
S-1135-106-8	60,800,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR OIL/NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #2 WITH NORTH AMERICAN BURNER AND SO2 SCRUBBER - W & S. CANCELLED BY APPLICANT IN LIEU OF 1995 RENEWAL. MRB
S-1135-107-0	8,400,000 BTU/HR	3020-02 G	1	980.00	980.00	D	8,400,000 BTU/HR HEATER TREATER
S-1135-109-6	62,500,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR OIL/NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #1 WITH NORTH AMERICAN BURNER, STAGED COMBUSTION, AND SO2 SCRUBBER - EXETER
S-1135-110-6	62,500,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR OIL/NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #2 WITH NORTH AMERICAN BURNER, STAGED COMBUSTION, AND SO2 SCRUBBER - EXETER
S-1135-111-8	62,500,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR OIL/NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #3 WITH NORTH AMERICAN BURNER, STAGED COMBUSTION, AND SO2 SCRUBBER - ANDERSON
S-1135-112-6	62,500,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR OIL/NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #4 WITH NORTH AMERICAN BURNER, STAGED COMBUSTION, AND SO2 SCRUBBER - EXETER
S-1135-113-2	62.5 MMBTU/HR STEAM GENERATOR	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR OIL FIRED STEAM GENERATOR #6 - EXETER
S-1135-115-24	62.5 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #1 (NEELY LEASE)
S-1135-116-9	62,500,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR OIL/NATURAL GAS FIRED STEAM GENERATOR #2 WITH STAGED COMBUSTION AND SO2 SCRUBBER - NEELY LEASE **PERMANENTLY REMOVED PER 3/9/99 LETTER, HAR**
S-1135-117-6	25,200,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR OIL FIRED STEAM GENERATOR #3 WITH SO2 SCRUBBER - NEELY
S-1135-118-14	100,800 gallons	3020-05 E	1	296.00	296.00	D	100,800 GALLON FIXED ROOF WASH TANK WITH VAPOR CONTROL SYSTEM CONSISTING OF VAPOR COMPRESSORS, PRE-COOLER, FIN-FAN COOLER, FREEWATER KNOCKOUTS #1, #2, AND #3, VARIOUS PUMPS AND PIPING, AND HEATER TREATERS #1, #2, #4, #5, #6, #7, AND #8 VENTED TO APPROVED INCINERATION DEVICES S-1135-9 AND -10 OR TEOR VAPOR CONTROL SKID INLET ON PERMIT S-1135-127 FOR RE-INJECTION TO DOGGR APPROVED WELL(S). SERVING TANKS S-1135-118, -146, -147, -148, -180, -181, -182, AND -296 (MAXWELL LEASE)

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-119-26	62.5 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #5 WITH NORTH AMERICAN BURNER (ANDERSON GOODWIN LEASE)
S-1135-120-8	62,500,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR OIL/NATURAL GAS FIRED STEAM GENERATOR #5 WITH NORTH AMERICAN BURNER AND SO2 SCRUBBER - NEELY LEASE **PERMANENTLY REMOVED PER 3/9/99 LETTER, HAR**
S-1135-121-7	62,500,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR OIL/NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #5 WITH NORTH AMERICAN BURNER, STAGED COMBUSTION, AND SO2 SCRUBBER - EXETER
S-1135-122-27	62.5 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #6 WITH NORTH AMERICAN BURNER (ANDERSON GOODWIN LEASE)
S-1135-123-25	62.5 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	D	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #7 WITH NORTH AMERICAN BURNER (ANDERSON GOODWIN LEASE)
S-1135-124-18	254 Wells	3020-09 A	254	11.23	2,852.42	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION SERVING 254 STEAM ENHANCED WELLS, AND TIED TO TEOR '293 INCLUDING PIPING TO BALANCED CGCS, RE-INJECTION COMPRESSORS OR INCINERATING STEAM GENERATORS (EXETER LEASE)
S-1135-125-16	144 Wells	3020-09 A	144	11.23	1,617.12	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION SERVING 144 STEAM ENHANCED CRUDE OIL PRODUCTION WELL VENTS, TIED TO TEOR '293 AND TVR '173 (W&S FEE LEASE)
S-1135-126-3	126,000 GALLONS	3020-05 E	1	296.00	296.00	D	126,000 GALLON FIXED ROOF WASH TANK, INCLUDING: VAPOR CONTROL SYSTEM, 1 AIR COOLED HEAT EXCHANGER, 1 INLET SCRUBBER, ONE 1 HP PUMP, 1 DISCHARGE SCRUBBER, AND ONE 30 HP COMPRESSOR. EXETER & BOAC LEASE TANK BATTERY.
S-1135-127-20	383 Wells	3020-09 A	383	11.23	4,301.09	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION INCLUDING ONE TRANSPORTABLE FIN FAN COOLER AND ASSOCIATED PIPING SERVING 383 STEAM ENHANCED WELL VENTS, COLLECTED VAPORS PIPED FROM VAPOR CONTROL COMPRESSOR SKIDS EITHER TO INJECTION COMPRESSORS FOR RE-INJECTION TO DOGGR WELLS, OR CONTAINED WITHIN THE BALANCED CASING GAS COLLECTION SYSTEM (CGCS) (MAXWELL LEASE)
S-1135-128-26	265 Wells	3020-09 A	265	11.23	2,975.95	A	THERMALLY ENHANCED OIL RECOVERY OPERATION (TEOR) SERVING 265 STEAM ENHANCED WELLS INCLUDING BALANCED WELL VENT CONTROL SYSTEM, PIPING TO DISPOSAL WELLS, TIED TO TEOR S-1135-129, TVR S-1135-149, S-1135-281, AND TEST SEPARATOR (NEELY LEASE)
S-1135-129-29	425 Wells	3020-09 A	425	11.23	4,772.75	A	THERMALLY ENHANCED OIL RECOVERY OPERATION AUTHORIZED FOR 425 STEAM ENHANCED WELLS INCLUDING BALANCED WELL VENT CONTROL SYSTEM, VAPOR PIPING TO INJECTION WELLS AND CONNECTED TO VESSELS S-1135-346 THROUGH '-351 AND '-353 THROUGH '-356 (ANDERSON-GOODWIN LEASE)

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-130-4	5.3 MMBTU/HR	3020-02 G	1	980.00	980.00	D	MAXWELL LEASE, 5.3 MMBTU/HR JOHN ZINC CO. WASTE GAS INCINERATOR WITH ANDERSEN 2000 SO2 SCRUBBER SERVING TEOR OPERATION S-1135-127 AND TANK BATTERY VAPOR CONTROL SYSTEM S-1135-118. CANCELLED BY APPLICANT ON 95 RENEWALS,MRB.
S-1135-131-1	126,000 GALLONS	3020-05 E	1	296.00	296.00	D	126,000 GALLON FIXED ROOF WASH TANK, INCLUDING VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-126 (EXETER & BOAC LEASES)
S-1135-132-1	126,000 GALLONS	3020-05 E	1	296.00	296.00	D	126,000 GALLON FIXED ROOF WASH TANK, INCLUDING: VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-126 (EXETER AND BOAC LEASES)
S-1135-133-1	126,000 GALLONS	3020-05 E	1	296.00	296.00	D	126,000 GALLON FIXED ROOF WASH TANK, INCLUDING: VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-126 (EXETER AND BOAC LEASES)
S-1135-134-1	126,000 GALLONS	3020-05 E	1	296.00	296.00	D	126,000 GALLON FIXED ROOF REJECT TANK, INCLUDING VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-126 (EXETER AND BOAC LEASES)
S-1135-135-1	126,000 GALLONS	3020-05 E	1	296.00	296.00	D	126,000 GALLON FIXED ROOF REJECT TANK, INCLUDING VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-126 (EXETER AND BOAC LEASES)
S-1135-136-0	16,800 GALLONS	3020-05 B	1	113.00	113.00	D	16,800 GALLON FIXED ROOF WATER TANK, INCLUDING VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1135-126, '-131, '-132, '-133, ' 134, '-135, AND '-137. EXETER AND BOAC LEASE TANK BATTERY. ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-137-0	16,800 GALLONS	3020-05 B	1	113.00	113.00	D	16,800 GALLON FIXED ROOF WATER TANK, INCLUDING VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1135-126, '-131, '-132, '-133, ' 134, '-135, AND '-136. EXETER AND BOAC LEASE TANK BATTERY. ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-138-4	11,260,000 BTU/HR	3020-02 G	1	980.00	980.00	D	NEELY INCINERATOR - 11.26 MMBTU/HR J.T THORP INC. WASTE GAS INCINERATOR WITH IN-LINE SULFUR SCAVENGER SYSTEM (SHARED WITH A/G S-1135-141) & ANDERSEN 2000 SO2 SCRUBBER. CANCELLED BY APPLICANT ON 1995 RENEWALS, MRB.
S-1135-139-3	15,540,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	W & S LEASE, 15.54 MMBTU/HR J.T. THORP WASTE GAS INCINERATOR WITH ANDERSEN 2000 SO2 SCRUBBER. CANCELLED BY APPLICANT ON 1995 RENEWALS - ANNUAL FEES NOT PAID. MRB.
S-1135-140-2	5,910,000 BTU/HR	3020-02 G	1	980.00	980.00	D	EXETER - 5.91 MMBTU/HR J.T. THORP WASTE GAS INCINERATOR WITH ANDERSEN 2000 SO2 SCRUBBER, INCLUDING: NONCONDENSIBLE VAPOR PIPING FROM TEOR OPERATION S-1135-124 AND TANK BATTERY S-1135-126.CANCELLED BY APPLICANT W 1995 RENEWALS, MRB.
S-1135-141-4	5,910,000 BTU/HR	3020-02 G	1	980.00	980.00	D	A/G LEASE - 5.91 MMBTU/HR J.T. THORP WASTE GAS INCINERATOR WITH ANDERSEN 2000 SO2 SCRUBBER. CANCELLED BY APPLICANT ON 1995 RENEWALS, MRB.

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-142-0	8,400,000 BTU/HR	3020-02 G	1	980.00	980.00	D	8,400,000 BTU/HR HEATER TREATER
S-1135-143-2	25,000,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN BURNER - DICKENSON TRUST
S-1135-144-0	25,000,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR STRUTHERS STEAM GENERATOR WITH NORTH AMERICAN BURNER, ANDERSON LEASE
S-1135-145-0	25,000,000 BTU/HR	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR BRINDLE STEAM GENERATOR WITH NORTH AMERICAN BURNER, ANDERSON LEASE
S-1135-146-6	67,200 gallons	3020-05 D	1	223.00	223.00	D	67,200 GALLON FIXED ROOF NET TANK SERVED BY VAPOR CONTROL SYSTEM LISTED S-1135-118 (MAXWELL LEASE)
S-1135-147-6	84,000 gallons	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF NET TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-118 (MAXWELL LEASE)
S-1135-148-6	420,000 gallons	3020-05 E	1	296.00	296.00	D	420,000 GALLON FIXED ROOF REJECT STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-118 (MAXWELL LEASE)
S-1135-149-24	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL CRUDE OIL LACT TANK ID# AG-01, WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1135-150, '151, '270, '301, '323, '339, AND VESSELS S-1135-346 THROUGH '-351 AND '-353 THROUGH '-356 (ANDERSON-GOODWIN)
S-1135-150-16	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL CRUDE OIL LACT TANK ID# AG-02, WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-149 (ANDERSON/GOODWIN LEASE)
S-1135-151-16	126,000 Gallons	3020-05 E	1	296.00	296.00	A	5,000 BBL REJECT TANK ID# AG-03, WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-149 (ANDERSON/GOODWIN LEASE)
S-1135-152-14	210,000 gallon	3020-05 E	1	296.00	296.00	D	210,000 GALLON REJECT TANK ID# AG-04, WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-149 (ANDERSON/GOODWIN LEASE)
S-1135-153-1	9,450 GALLONS	3020-05 B	1	113.00	113.00	D	9,450 GALLON WASH TANK ID# AG-05, ANDERSON/GOODWIN LEASE
S-1135-154-1	16,000 GALLONS	3020-05 B	1	113.00	113.00	D	16,000 GALLON FIXED ROOF POLISH TANK ID# AG-06, ANDERSON/GOODWIN LEASE.
S-1135-155-16	281,400 gallon	3020-05 E	1	296.00	296.00	D	281,400 GALLON (6,700 BBL) FIXED ROOF WASH TANK ID# AG-07, WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-149 (ANDERSON/GOODWIN LEASE)
S-1135-156-0	10,500 GALLONS	3020-05 C	1	165.00	165.00	D	10,500 GALLON FIXED ROOF CONDENSATE TANK ID# AG-08, ANDERSON/GOODWIN LEASE.
S-1135-157-8	420,000 gallon	3020-05 E	1	296.00	296.00	D	420,000 GALLON FIXED ROOF PROCESS TANK ID# AG-09 VENTED TO VAPOR CONTROL SKID LISTED ON S-1135-129 (ANDERSON/GOODWIN LEASE)
S-1135-158-0	21,000 GALLONS	3020-05 C	1	165.00	165.00	D	21,000 GALLON FIXED ROOF GENERATOR FUEL TANK ID# AG-10, ANDERSON/GOODWIN LEASE

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-159-0	21,000 GALLONS	3020-05 C	1	165.00	165.00	D	21,000 GALLON FIXED ROOF GENERATOR FUEL TANK ID# AG-11, ANDERSON/GOODWIN LEASE
S-1135-160-0	10,500 GALLONS	3020-05 B	1	113.00	113.00	D	10,500 GALLON WASH TANK ID# AG-12, ANDERSON/GOODWIN LEASE
S-1135-161-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF REJECT OIL STORAGE TANK ID# AG-13, ANDERSON/GOODWIN LEASE
S-1135-162-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF REJECT OIL STORAGE TANK ID# AG-14, ANDERSON/GOODWIN LEASE
S-1135-163-1	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF #1 WASH TANK(WEST) ID# A-01, WITH VAPOR RECOVERY SYSTEM SHARED WITH TANKS S-1135-164, '-165, AND '-166. ANDERSON LEASE.
S-1135-164-1	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF WASH TANK(WEST) ID# A-02, WITH VAPOR RECOVERY SYSTEM SHARED WITH TANKS S-1135-163, '-165, AND '-166. ANDERSON LEASE TANK BATTERY
S-1135-165-1	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF LACT STORAGE TANK(EAST) ID# A-03, WITH VAPOR RECOVERY SYSTEM SHARED WITH TANKS S-1135-163, '-164, AND '-166. ANDERSON LEASE TANK BATTERY
S-1135-166-1	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF REJECT OIL STORAGE TANK(WEST) ID# A-04, WITH VAPOR RECOVERY SYSTEM SHARED WITH TANKS S-1135-163, '-164, AND '-165. ANDERSON LEASE TANK BATTERY
S-1135-168-0	42,000 GALLONS	3020-05 C	1	165.00	165.00	D	42,000 GALLON FIXED ROOF PRODUCED WATER TANK ID# A-06, ANDERSON LEASE
S-1135-169-2	546,000 gallons	3020-05 F	1	362.00	362.00	D	546,000 GALLON FIXED ROOF T100 PRODUCED WATER TANK ID# VWP-01, VICTORY WATER PLANT
S-1135-170-2	126,000 gallons	3020-05 E	1	296.00	296.00	D	126,000 GALLON FIXED ROOF T101 PRODUCED WATER TANK ID# VWP-02, VICTORY WATER PLANT
S-1135-171-0	8,400 GALLONS	3020-05 B	1	113.00	113.00	D	8,400 GALLON FIXED ROOF T102 PRODUCED WATER TANK ID# VWP-03, VICTORY WATER PLANT
S-1135-172-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF T103 PRODUCED WATER TANK ID# VWP-04, VICTORY WATER PLANT
S-1135-173-25	67,200 Gallons	3020-05 D	1	223.00	223.00	A	1,600 BBL (67,200 GALLON) FIXED ROOF LACT TANK ID# WS-01, HANDLING MAXWELL LEASE PRODUCTION, AND VESSELS V-101, V-102, V-103, AND V-104; WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1135-174, -175, -178, -325, AND -337 (W&S LEASE) DISCHARGING TO TEOR WVCVS S-1135-125
S-1135-174-12	84,000 Gallons	3020-05 D	1	223.00	223.00	A	2,000 BBL (84,000 GALLON) FIXED ROOF WASH TANK ID# WS-02, HANDLING MAXWELL LEASE PRODUCTION, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)
S-1135-175-11	67,200 Gallons	3020-05 D	1	223.00	223.00	A	1,600 BBL (67,200 GALLON) FIXED ROOF LACT TANK ID# WS-03, HANDLING MAXWELL LEASE PRODUCTION, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-176-8	210,000 GALLONS	3020-05 E	1	296.00	296.00	D	5,000 BBL (210,000 GALLON) FIXED ROOF STOCK TANK ID# WS-04, HANDLING MAXWELL LEASE PRODUCTION, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)
S-1135-177-8	420,000 GALLONS	3020-05 E	1	296.00	296.00	D	10,000 BBL (420,000 GALLON) FIXED ROOF WASH TANK ID# WS-05, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)
S-1135-178-13	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL (126,000 GALLON) FIXED ROOF SUMP PROCESS TANK ID# WS-06, HANDLING MAXWELL LEASE PRODUCTION, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)
S-1135-179-1	126,000 GALLONS	3020-05 E	1	296.00	296.00	D	126,000 GALLON FIXED ROOF WASH TANK WITH VAPOR RECOVERY SYSTEM SHARED BY TANK S-1135-173, W & S LEASE TANK BATTERY. ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-180-6	63,000 gallons	3020-05 D	1	223.00	223.00	D	63,000 GALLON FIXED ROOF SLOP OIL TANK ID# M-05 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-118 (MAXWELL LEASE)
S-1135-181-6	210,000 gallons	3020-05 E	1	296.00	296.00	D	210,000 GALLON FIXED ROOF SUMP PROCESS TANK ID# M-06 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-118 (MAXWELL LEASE)
S-1135-182-6	420,000 gallons	3020-05 E	1	296.00	296.00	D	420,000 GALLON FIXED ROOF SUMP PROCESS TANK ID# M-07 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-118 (MAXWELL LEASE)
S-1135-183-3	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF LACT TANK (ID# GU-01) WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1135-184, '186, AND '192, AND TIE INTO TEOR SYSTEM S-1135-293 (GLOBE LEASE)
S-1135-184-2	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF LACT TANK (ID# GV-02), WITH VAPOR CONTROL SHARED WITH S-1135-183 (GLOBE LEASE)
S-1135-185-0	67,200 GALLONS	3020-05 D	1	223.00	223.00	D	67,200 GALLON FIXED ROOF SAND TANK ID# GV-03, GLOBE LEASE ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-186-2	210,000 GALLONS	3020-05 E	1	296.00	296.00	D	210,000 GALLON FIXED ROOF REJECT TANK (ID# GV-04), WITH VAPOR VAPOR CONTROL SHARED WITH S-1135-183 (GLOBE LEASE)
S-1135-187-0	63,000 GALLONS	3020-05 D	1	223.00	223.00	D	63,000 GALLON FIXED ROOF REJECT TANK ID# GV-05, GLOBE LEASE ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-188-0	63,000 GALLONS	3020-05 D	1	223.00	223.00	D	63,000 GALLON FIXED ROOF REJECT TANK ID# GV-06, GLOBE LEASE ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-189-1	63,000 GALLONS	3020-05 D	1	223.00	223.00	D	63,000 GALLON FIXED ROOF SLOP OIL TANK ID# GV-07, WITH VAPOR RECOVERY SYSTEM SHARED WITH TANKS S-1135-183, '-184, '-186, '-192, AND '-197.GLOBE LEASE TANK BATTERY ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-190-0	21,000 GALLONS	3020-05 C	1	165.00	165.00	D	21,000 GALLON FIXED ROOF REJECT TANK ID# GV-08, GLOBE LEASE ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-191-0	8,400 GALLONS	3020-05 B	1	113.00	113.00	D	8,400 GALLON FIXED ROOF FUEL OIL STORAGE TANK ID# GV-09, GLOBE LEASE ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-192-2	210,000 GALLONS	3020-05 E	1	296.00	296.00	D	210,000 GALLON FIXED ROOF WASH TANK (ID# GV-10), WITH VAPOR CONTROL SHARED WITH S-1135-183 (GLOBE LEASE)
S-1135-193-0	63,000 GALLONS	3020-05 D	1	223.00	223.00	D	63,000 GALLON FIXED ROOF WASH TANK ID# GV-11, GLOBE LEASE
S-1135-194-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF #6 WASH TANK ID# GV-12, GLOBE LEASE ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-195-0	21,000 GALLONS	3020-05 C	1	165.00	165.00	D	21,000 GALLON FIXED ROOF CONDENSATE TANK ID# GV-13, GLOBE LEASE ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-196-0	63,000 GALLONS	3020-05 D	1	223.00	223.00	D	63,000 GALLON FIXED ROOF SHIPPING TANK ID# GV-14, GLOBE LEASE ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-197-1	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF WASH TANK ID# GV-15, WITH VAPOR RECOVERY SYSTEM SHARED WITH TANKS S-1135-183, '-184, '-186, '-189, AND '-192. GLOBE LEASE TANK BATTERY ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-198-0	42,000 GALLONS	3020-05 C	1	165.00	165.00	D	42,000 GALLON FIXED ROOF TANK ID# DT-01, DICKINSON TRUST LEASE.
S-1135-199-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF RUN TANK ID# DT-02, DICKINSON TRUST LEASE
S-1135-200-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF RUN TANK ID# DT-03, DICKINSON TRUST LEASE
S-1135-201-0	31,500 GALLONS	3020-05 C	1	165.00	165.00	D	31,500 GALLON FIXED ROOF WASH TANK ID# DT-04, DICKINSON TRUST LEASE
S-1135-202-0	21,000 GALLONS	3020-05 C	1	165.00	165.00	D	21,000 GALLON FIXED ROOF POLISH TANK ID# E-09, EXETER LEASE ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-203-0	21,000 GALLONS	3020-05 C	1	165.00	165.00	D	21,000 GALLON FIXED ROOF POLISH TANK ID# E-10, EXETER LEASE ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-204-0	21,000 GALLONS	3020-05 C	1	165.00	165.00	D	21,000 GALLON FIXED ROOF FUEL STORAGE TANK ID# E-11, EXETER LEASE ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-205-0	8,400 GALLONS	3020-05 B	1	113.00	113.00	D	8,400 GALLON FIXED ROOF CONDENSATE TANK ID# E-12, EXETER LEASE ***CANCELLED PER COMPANY REQUEST 6/20/94 MPE***
S-1135-206-1	210,000 GALLONS	3020-05 E	1	296.00	296.00	D	210,000 GALLON FIXED ROOF CLARIFIER TANK ID# E-13, WITH VAPOR RECOVERY, EXETER LEASE
S-1135-207-1	210,000 GALLONS	3020-05 E	1	296.00	296.00	D	210,000 GALLON FIXED ROOF SUMP TANK ID# E-14, WITH VAPOR CONTROL (EXETER LEASE)
S-1135-208-0	63,000 GALLONS	3020-05 D	1	223.00	223.00	D	63,000 GALLONS FIXED ROOF PETROLEUM STORAGE TANK ID# AG-18

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-209-0	21,000 GALLONS	3020-05 C	1	165.00	165.00	D	21,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK ID# AG-19
S-1135-210-0	8,820 GALLONS	3020-05 B	1	113.00	113.00	D	8,820 GALLON FIXED ROOF STORAGE TANK ID# GU-19
S-1135-211-0	8,820 GALLONS	3020-05 B	1	113.00	113.00	D	8,820 GALLON FIXED ROOF STORAGE TANK ID# GU-20
S-1135-212-8	210,000 GALLONS	3020-05 E	1	296.00	296.00	D	210,000 GALLON FIXED ROOF CLARIFIER TANK #9 WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1135-213, '281, '284, '285, '286, '287 - NEELY LEASE
S-1135-213-4	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF REJECT TANK #1 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-212 - NEELY LEASE
S-1135-214-3	67,200 GALLONS	3020-05 D	1	223.00	223.00	D	67,200 GALLON FIXED ROOF REJECT TANK #2 WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1135-212, '-213, '-219, '-281, '-282, '-284, '-285, '-286, AND '-287. NEELY LEASE TANK BATTERY**CANCELED PER COMPLIANCE REQUEST, DOES NOT EXIST, DBT, 6/16/99**
S-1135-219-3	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF CRUDE OIL REJECT TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-212 - NEELY LEASE
S-1135-220-1	42,000 GALLONS	3020-05 C	1	165.00	165.00	D	42,000 GALLON FIXED ROOF PRODUCED WATER TANK #4 WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1135-212, '-213, '-214, '-219, '-221, '-284, '-285, '-286, AND '-287. NEELY LEASE TANK BATTERY "" CANCELLED - NOW PERMIT S-1135-281""
S-1135-221-0	16,800 GALLONS	3020-05 B	1	113.00	113.00	D	16,800 GALLON FIXED ROOF POLISH TANK, WITH NO VAPOR CONTROL. NEELY TANK BATTERY ""CANCELLED - NOW PERMIT S-1135-282""
S-1135-222-0	6,300 GALLONS SUMP REPLACEMENT TANK	3020-05 B	1	113.00	113.00	D	6,300 GALLON (150 BBL) SUMP REPLACEMENT TANK. W & S LEASE.
S-1135-224-29	78.2 MW	3020-08A G	1	12,254.00	12,254.00	A	78.2 MW COGENERATION UNIT A WITH GE MODEL G7111E FRAME 7E GAS TURBINE ENGINE WITH DRY LOW NOX COMBUSTORS (DLN1+ TURNDOWN ENHANCE), SELECTIVE CATALYTIC REDUCTION (SCR), AND UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG)
S-1135-225-28	78.2 MW	3020-08A G	1	12,254.00	12,254.00	A	78.2 MW COGENERATION UNIT B WITH GE MODEL G7111E FRAME 7E GAS TURBINE ENGINE WITH DRY LOW NOX COMBUSTORS (DLN1+ TURNDOWN ENHANCE), SELECTIVE CATALYTIC REDUCTION (SCR), AND UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG)
S-1135-226-27	78.2 MW	3020-08A G	1	12,254.00	12,254.00	A	NOMINALLY RATED 78.2 MW COGENERATION UNIT C WITH GE MODEL G7111E FRAME 7E GAS TURBINE ENGINE WITH DRY LOW NOX COMBUSTORS, SELECTIVE CATALYTIC REDUCTION (SCR), AND UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG)
S-1135-227-0	252,000 GAL.	3020-05 G	1	461.00	461.00	D	252,000 GALLON FLOATING ROOF TANK #T300-A, INCLUDING: LIQUID MOUNTED FOAM FILLED PRIMARY SEAL AND RIM-MOUNTED SECONDARY SEAL (CANCELED BY PERMITTEE CONVERTED TO FEEDWATER STORAGE TANKS-(NOT SUBJECTED TO 4623, CEC CEQA BACT REG'T.) TEG 8/3/98)

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-228-0	252,000 GAL.	3020-05 G	1	461.00	461.00	D	252,000 GALLON FLOATING ROOF TANK #T300-B, INCLUDING: LIQUID MOUNTED FOAM FILLED PRIMARY SEAL AND RIM-MOUNTED SECONDARY SEAL (CANCELED BY PERMITTEE-CONVERTED TO FEEDWATER TANKS (NOT SUBJECT TO 4623, CEC CEQA BACT REQ'T.) TEG 8/3/98)
S-1135-230-4	18,000 Gallons	3020-05 B	1	113.00	113.00	A	1 MISCELLANEOUS STEAM DUMPING-ROCK BED MUFFLER OPERATION FOR MIDWAY SUNSET COGENERATION BLOWDOWN
S-1135-231-6	165 HP	3020-10 B	1	143.00	143.00	A	165 HP DIESEL-FIRED EMERGENCY I.C. ENGINE POWERING A FIREWATER PUMP
S-1135-232-1	8.4 MM BTU/HR	3020-02 G	1	980.00	980.00	D	8.4 MMBTU/HR HEATER TREATER #2 CONSISTING OF TWO 4.2 MMBTU/HR BURNERS WITH SEPARATE STACKS (KENDON LEASE)
S-1135-233-0	8,400,000 BTU/HR	3020-02 G	1	980.00	980.00	D	4.2 MMBTU/HR HEATER TREATER
S-1135-235-4	2,520 HP	3020-10 F	1	900.00	900.00	A	2,520 BHP DIESEL FIRED CATERPILLAR MODEL #3516STD EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR
S-1135-236-1			1	0.00	0.00	D	0 CONTROLLED CYCLIC WELLS (77 EXISTING CONTROLLED WELLS TRANSFERRED TO ATC S-1135-283-1).
S-1135-264-0	42,000 GALLONS	3020-05 C	1	165.00	165.00	D	42,000 GALLON FIXED ROOF SUMP REPLACEMENT TANK WITH PRESSURE/VACUUM RELIEF VALVE. MOCAL LEASE
S-1135-266-18	62.5 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	A	62.5 MMBTU/HR STRUTHERS STEAM GENERATOR, WITH A COEN QLN-ULN BURNER, O2 CONTROLLER, FLUE GAS RECIRCULATION AND SO2 SCRUBBER LISTED ON S-1135-26 (METSON 48)
S-1135-267-18	62.5 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	A	62.5 MMBTU/HR STRUTHERS GAS-FIRED STEAM GENERATOR (#49) WITH A COEN MODEL QLN-ULN BURNER WITH FLUE GAS RECIRCULATION (FGR) (KENDON LEASE)
S-1135-270-14	210,000 Gallons	3020-05 E	1	296.00	296.00	A	5,000 BBL FIXED ROOF OIL TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-149 (ANDERSON/GOODWIN LEASE)
S-1135-281-17	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL FIXED ROOF SUMP REPLACEMENT TANK WITH VAPOR CONTROL SYSTEM SHARED WITH S-1135-284, -285, -286, -287, -328, '-329, '-330, '-331, '-332, '-333, '-334, AND '-335
S-1135-282-0	84,000 GALLONS	3020-05 D	1	223.00	223.00	D	84,000 GALLON FIXED ROOF PRODUCED WATER TANK WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1135-212, '-213, '-214, '-219, '281, '-284, '-285, '-286, AND '-287. NEELY LEASE TANK BATTERY.
S-1135-283-8	90 Wells	3020-09 A	90	11.23	1,010.70	A	THERMALLY ENHANCED OIL RECOVERY OPERATION (TEOR) SERVING 90 STEAM ENHANCED WELLS WITH CLOSED CASING VENTS (ANDERSON LEASE)
S-1135-284-16	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL FIXED ROOF RUN TANK #5, WITH VAPOR CONTROL SYSTEM LISTED ON S-1135-281
S-1135-285-18	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL FIXED ROOF LACT TANK #6 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-281

Detailed Facility Report

For Facility=1135

Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-286-18	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL FIXED ROOF LACT TANK #7 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-281
S-1135-287-18	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL FIXED ROOF LACT TANK #8 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-281
S-1135-288-0	70 BHP	3020-10 A	1	98.00	98.00	D	ONE M & M 70 BHP RICH BURN, NATURAL GAS FIRED INTERNAL COMBUSTION ENGINE USED TO POWER AN OIL WELL RECIPROCATING PUMP UNIT.
S-1135-293-9	300 Wells	3020-09 A	300	11.23	3,369.00	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION SERVING 300 STEAM DRIVE WELLS WITH CASING VENTS TIED TO VAPOR CONTROL SYSTEM INCLUDING, THREE VAPOR CONTROL SKIDS WITH SEPARATOR(S), HEAT EXCHANGER(S), FAN(S), AND COMPRESSOR(S), WITH NON-CONDENSIBLE VAPOR PIPING SHARED WITH TEOR OPERATION S-1135-124 (EXETER LEASE) CONTROLLED BY BALANCED CASING VENT COLLECTION SYSTEM OR RE-INJECTION INTO DOGGR APPROVED DISPOSAL WELL (GLOBE LEASE)
S-1135-294-8	126,000 gallon	3020-05 E	1	296.00	296.00	D	126,000 GALLON FIXED ROOF SUMP REPLACEMENT TANK VENTED TO VAPOR CONTROL SKID LISTED ON S-1135-129 (ANDERSON/GOODWIN LEASE)
S-1135-296-5	285,600 gallons	3020-05 E	1	296.00	296.00	D	285,600 GALLON FIXED ROOF REJECT TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-118 (MAXWELL LEASE)
S-1135-297-1	126,000 GALLON TANK	3020-05 E	1	296.00	296.00	D	126,000 GALLON, 30 FT DIAMETER, FIXED ROOF STOCK TANK WITH VAPOR CONTROL SYSTEM (KENDON LEASE)
S-1135-299-12	62.5 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	A	62.5 MMBTU/HR GAS-/LPG-FIRED STEAM GENERATOR #50 WITH A COEN MODEL QLN-ULN LOW-NOX BURNER, A FLUE GAS RECIRCULATION SYSTEM AND AN OXYGEN CONTROLLER (KENDON LEASE)
S-1135-301-15	281,400 Gallons	3020-05 E	1	296.00	296.00	A	6,700 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-149 (ANDERSON/GOODWIN LEASE)
S-1135-302-13	62.5 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	A	62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (#5) WITH A COEN MODEL QLN-ULN ULTRA LOW NOX BURNER WITH FLUE GAS RECIRCULATION (FGR) (BUENA FE LEASE)
S-1135-305-13	62.5 MMBtu/hr	3020-02 H	1	1,238.00	1,238.00	A	62.5 MMBTU/HR NAT GAS-FIRED STEAM GENERATOR # 52, WITH A COEN QLN-ULN LOW NOX BURNER, WITH FLUE GAS RECIRCULATION, (PRU LEASE)
S-1135-322-5	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL FIXED ROOF WASH TANK T-101, WITH VAPOR RECOVERY (LISTED IN S-1135-70) - METSON LEASE TANK BATTERY
S-1135-323-6	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-149 - ANDERSON GOODWIN LEASE

Detailed Facility Report

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Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-325-5	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK, HANDLING MAXWELL LEASE PRODUCTION, SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W & S LEASE)
S-1135-326-5	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL FIXED ROOF WASH TANK T-102, WITH VAPOR RECOVERY (LISTED IN S-1135-70) - METSON LEASE TANK BATTERY
S-1135-327-4	38,010 Gallons	3020-05 C	1	165.00	165.00	A	905 BBL FWKO VESSEL (V-100) CONNECTED TO VAPOR RECOVERY SYSTEM LISTED ON S-1135-70
S-1135-328-3	50,400 Gallons	3020-05 D	1	223.00	223.00	A	1,200 BBL FLOW SPLITTER PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)
S-1135-329-3	50,400 Gallons	3020-05 D	1	223.00	223.00	A	1,200 BBL FWKO PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)
S-1135-330-3	50,400 Gallons	3020-05 D	1	223.00	223.00	A	1,200 BBL "GAS BUSTER" PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)
S-1135-331-3	50,400 Gallons	3020-05 D	1	223.00	223.00	A	1,200 BBL UNFIRED TREATER #1 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)
S-1135-332-3	50,400 Gallons	3020-05 D	1	223.00	223.00	A	1,200 BBL UNFIRED TREATER #2 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)
S-1135-333-3	50,400 Gallons	3020-05 D	1	223.00	223.00	A	1,200 BBL UNFIRED TREATER #4 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)
S-1135-334-3	50,400 Gallons	3020-05 D	1	223.00	223.00	A	1,200 BBL UNFIRED TREATER #6 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)
S-1135-335-3	50,400 Gallons	3020-05 D	1	223.00	223.00	A	1,200 BBL UNFIRED TREATER #7 PRESSURE VESSEL VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1135-281 (NEELY)
S-1135-336-4	50,400 Gallons	3020-05 D	1	223.00	223.00	A	1,200 BBL UNFIRED TREATER PRESSURE VESSEL (B-101D) VENTED TO THE VAPOR CONTROL SYSTEM LISTED ON S-1547-865 (ALBERTA SHALE)
S-1135-337-5	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL (126,000 GALLON) FIXED ROOF STOCK TANK ID# WS-04, HANDLING MAXWELL LEASE PRODUCTION, CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON S-1135-173 (W&S LEASE)
S-1135-339-3	126,000 Gallons	3020-05 E	1	296.00	296.00	A	3,000 BBL REJECT TANK CONNECTED TO THE VAPOR CONTROL SYSTEM LISTED ON TANK S-1135-149 (ANDERSON/GOODWIN LEASE)
S-1135-340-0	25.2 MMBtu/hr steam generator	3020-02 H	1	1,238.00	1,238.00	D	25.2 MMBTU/HR OIL-FIRED STEAM GENERATOR DESIGNATED AS A DORMANT EMISSIONS UNIT FOR RULE 4306
S-1135-341-0	105,000 Gallons	3020-05 E	1	296.00	296.00	D	2,500 BBL FIXED ROOF PETROLEUM STORAGE TANK #10209
S-1135-342-0	83,454 Gallons	3020-05 D	1	223.00	223.00	D	1,987 BBL FIXED ROOF PETROLEUM STORAGE TANK #10412
S-1135-343-0	42,000 Gallons	3020-05 C	1	165.00	165.00	D	1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #10696
S-1135-344-0	42,000 Gallons	3020-05 C	1	165.00	165.00	D	1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #VWI

Detailed Facility Report

For Facility=1135

Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1135-345-2	21,000 Gallons	3020-05 C	1	165.00	165.00	A	500 BBL FIXED ROOF CRUDE OIL STORAGE TANK #251296 WITH P/V VENT
S-1135-346-2	50,400 Gallons	3020-05 D	1	223.00	223.00	A	1,200 BBL FREE WATER KNOCK OUT (FWKO) #1 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)
S-1135-347-2	50,400 Gallons	3020-05 D	1	223.00	223.00	A	1,000 BBL FLOW SPLITTER VESSEL CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)
S-1135-348-2	29,400 Gallons	3020-05 C	1	165.00	165.00	A	700 BBL FLOW GAS BUSTER VESSEL CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)
S-1135-349-2	42,000 Gallon	3020-05 C	1	165.00	165.00	A	1,000 BBL TREATER VESSEL #1 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)
S-1135-350-2	42,000 Gallons	3020-05 C	1	165.00	165.00	A	1,000 BBL TREATER VESSEL #2 CONNECTED TO VAPOR RECOVERY SYSTEM CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)
S-1135-351-2	42,000 Gallons	3020-05 C	1	165.00	165.00	A	1,000 BBL TREATER VESSEL #3 CONNECTED TO VAPOR RECOVERY SYSTEM CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)
S-1135-352-0	42,000 gallons	3020-05 C	1	165.00	165.00	D	CANCEL
S-1135-353-2	42,000 Gallons	3020-05 C	1	165.00	165.00	A	1,000 BBL TREATER VESSEL #5 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)
S-1135-354-2	42,000 Gallons	3020-05 C	1	165.00	165.00	A	1,000 BBL TREATER VESSEL #6 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)
S-1135-355-2	42,000 Gallons	3020-05 C	1	165.00	165.00	A	1,000 BBL TREATER VESSEL #7 CONNECTED TO VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)
S-1135-356-2	42,000 Gallons	3020-05 C	1	165.00	165.00	A	1,000 BBL TREATER VESSEL #8 CONNECTED TO THE VAPOR CONTROL SYSTEMS LISTED ON S-1135-129 AND/OR '-149 (ANDERSON-GOODWIN)

Number of Facilities Reported: 1