



AUG 30 2016

Mr. Mile Rinehart  
Pastoria Energy Facility, LLC  
39789 Edmonston Pumping Plant Rd.  
PO Box 866  
Lebec, CA 93243-0866

**Re: Notice of Final Action - Title V Permit Renewal  
District Facility # S-3636  
Project # 1153617**

Dear Mr. Rinehart:

The District has issued the Final Renewed Title V Permit for Pastoria Energy Facility, LLC (see enclosure). The preliminary decision for this project was made on 7/25/16. A summary of the comments and the District's response to each comment is included as an attachment to the engineering evaluation.

The public notice for issuance of the Final Title V Permit will be published approximately three days from the date of this letter.

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

Sincerely,



Arnaud Marjollet  
Director of Permit Services

Enclosures

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

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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

**Central Region (Main Office)**  
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# SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

Final Title V Permit Renewal Evaluation  
Pastoria Energy Facility, LLC  
S-3636

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**TITLE V PERMIT RENEWAL EVALUATION**  
**A Comment was Received During the Preliminary Decision**  
**Noticing Period. The Comment is Addressed in**  
**Attachment D.**  
**Electric Generation Facility**

**Engineer:** David Torii  
**Date:** 8/30/16

**Facility Number:** S-3636  
**Facility Name:** Pastoria Energy Facility, LLC  
**Mailing Address:** 39789 Edmonston Pumping Plant Rd  
PO Box 866  
**Contact Name:** Mike Rinehart  
**Phone:** 661-282-4404  
**Responsible Official:** Mike Rinehart  
**Title:** Plant Manager  
**Project # :** 1153617  
**Deemed Complete:** 9/22/15

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**I. PROPOSAL**

Pastoria Energy Facility, LLC was issued a Title V permit on 1/31/12. As required by District Rule 2520, the applicant is requesting a permit renewal. 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 initial Title V permit on 1/10/12.

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**

Pastoria Energy Facility, LLC is located at 39789 Edmonston Pumping Plant Road in Arvin.

### **III. EQUIPMENT LISTING**

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

### **IV. GENERAL PERMIT TEMPLATE USAGE**

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

### **V. SCOPE OF EPA AND PUBLIC REVIEW**

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

### **VI. FEDERALLY ENFORCEABLE REQUIREMENTS**

#### **A. Rules Updated or Evaluated**

- District Rule 2020 Exemptions, (Amended December 18, 2014)
- District Rule 2201, New and Modified Stationary Source Review Rule (amended 2/18/16)
- 40 CFR Part 60, Subpart GG, Standards of Performance for Stationary Gas Turbines (2/27/14)
- 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (2/27/14)
- 40 CFR Part 60, Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (2/27/14)
- 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (amended 2/27/2014)
- 40 CFR Part 64, Compliance Assurance Monitoring (10/22/97)
- 40 CFR Part 82, Subpart B Stratospheric Ozone (June 25, 2013)
- 40 CFR Part 82, Subpart F Stratospheric Ozone (June 25, 2013)

#### **B. Rules Removed**

None.

### **C. Rules Added**

- District Rule 2410, Prevention of Significant Deterioration (adopted June 16, 2011, effective November 26, 2012)

### **D. Rules Not Updated**

- District Rule 1070 Inspections (Amended December 17, 1992)
- District Rule 1080, Stack Monitoring (amended December 17, 1992)
- District Rule 1081, Source Sampling (amended December 16, 1993)
- District Rule 2010, Permits Required (amended December 17, 1992)
- District Rule 2031, Transfer of Permits (amended December 17, 1992)
- District Rule 2070, Standards for Granting Applications (amended December 17, 1992)
- District Rule 2080, Conditional Approval (amended December 17, 1992)
- District Rule 2520, Federally Mandated Operating Permits (amended June 21, 2001)
- District Rule 4101, Visible Emissions (amended February 17, 2005)
- District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)
- District Rule 4301, Fuel Burning Equipment (amended December 17, 1992)
- District Rule 4703, Stationary Gas Turbines (amended September 20, 2007)
- District Rule 4801, Sulfur Compounds (amended December 17, 1992)
- 40 CFR Part 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines (amended 3/20/09)
- 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos (7/20/04)
- 40 CFR 63 Subpart Q - National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers (4/7/06)
- 40 CFR Part 63 Subpart YYYY—National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (4/20/06)
- 40 CFR Part 64, Compliance Assurance Monitoring (10/22/97)
- 40 CFR Part 72 - Acid Rain Program (3/28/11)

## **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:

**A. Rules Added**

None.

**B. Rules Not Updated**

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

Condition 39 of permit unit '0-1 is based on District Rule 4102 and will therefore not be discussed any further.

**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 2020 - Exemptions**

District Rule 2020 lists equipment which are specifically exempt from obtaining permits and specifies recordkeeping requirements to verify such exemptions. The amendments to this rule do not have any affect on current permit requirements and will therefore not be addressed in this evaluation.

**B. District Rule 2201 - New and Modified Stationary Source Review Rule**

District Rule 2201 has been amended since this facility's initial Title V permit was issued. This Title V permit renewal does not constitute a modification per section 3.26, defined as an action including at least one of the following items:

- 1) Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.
- 2) Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.

- 3) An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.
- 4) Addition of any new emissions unit which is subject to District permitting requirements.
- 5) A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

Therefore, the updated requirements of this rule are not applicable at this time.

**C. District Rule 2410 – Prevention of Significant Deterioration**

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

The rule did not create new requirements, but merely transfers the authority for the 40 CFR Part 52.21 requirements to the District. Prior to adoption of this rule, that authority was vested with the USEPA. This action does not involve construction and thus does not trigger additional PSD requirements for this source. Therefore, the facility is not subject to this rule and no further discussion is required.

**D. 40 CFR Part 60, Subpart GG, Standard of Performance for Stationary Gas Turbines**

40 CFR Part 60 Subpart GG applies to stationary gas turbines with a heat input greater than 10.7 gigajoules per hour (10.2 MMBtu/hr) that commence construction, modification, or reconstruction after 10/03/77. Each of the facility's turbines are subject to this subpart.

Section 60.335 of this subpart was amended on 2/27/14 by clarifying NO<sub>x</sub> source testing procedures. No permit revision is necessary as a result of the amendment.

The current PTOs' conditions will continue to ensure compliance with this subpart.

**E. 40 CFR Part 60, Subpart IIII--Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

Pursuant to section 60.4200(3) this subpart applies to owners and operators of any stationary compression ignited IC engine that were modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

This facility's compression ignited IC engine (S-3636-12) was not modified or reconstructed after 7/11/05. Therefore, this subpart does not apply. No further discussion is required

**F. 40 CFR Part 60, Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (2/27/14)**

Pursuant to §60.4230(a)(5) owners and operators of stationary spark (SI) ignited IC engines that are modified or reconstructed after June 12, 2006, and any person that modifies or reconstructs any stationary SI ICE after June 12, 2006.

This facility's SI IC engine (S-3636-7) was not modified or reconstructed after June 12, 2006. Therefore, this subpart does not apply. No further discussion is required.

**G. 40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Emissions (RICE)**

IC engines S-3636-7 and 12 currently have conditions ensuring compliance with this regulation.

This subpart was amended on 1/30/13 and 2/27/14. The 1/30/13 amendment included alternative testing options for certain large spark ignition (generally natural gas-fueled) stationary reciprocating internal combustion engines, management practices for a subset of existing spark ignition stationary reciprocating internal combustion engines in sparsely populated areas and alternative monitoring and compliance options for the same engines in populated areas.

The 2/27/14 amendment included revisions to clarify that a heated probe is not necessary when using ASTM D6522 to measure oxygen or carbon dioxide concentrations. The requirement to use Method 1 or 1A for sampling site and sampling point selection in testing gaseous emissions from engines



with smaller ducts is deleted, and single- or three-point sampling, depending on duct size, is added.

These amendments do not affect the facility's IC engines. No further discussion is required.

#### **H. 40 CFR Part 64 – Compliance Assurance Monitoring**

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

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

This regulation was last amended on 10/22/97; however, the Rule 2201 Major Source thresholds for NO<sub>x</sub> and VOC were lowered from 50,000 to 20,000 lb/year via the 12/18/08 amendment to Rule 2201 (the amended rule was not effective till 6/10/10). The initial Title V permit, finalized on 1/10/12, evaluated the permits at the 20,000 lb/year NO<sub>x</sub> and VOC thresholds; consequently, a CAM discussion is not required for this renewal.

Additionally, gas turbines S-3636-1, '2 and '3 are equipped with continuous emission monitoring systems (CEMS) and are therefore not subject to CAM requirements.

#### **I. 40 CFR Part 82, Subparts B and F, Stratospheric Ozone**

These regulations apply to servicing motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC). Sections of this regulation were amended in 2013, and conditions 28 and 29 of S-723-0-4 assure compliance with the requirements.

### **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**

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

**X. PERMIT CONDITIONS**

See Attachment A - Draft Renewed Title V Operating Permit.

**XI. ATTACHMENTS**

- A. Final Renewed Title V Operating Permit
- B. Previous Title V Operating Permit
- C. Detailed Facility List
- D. Comment Received During Preliminary Decision and District Response

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# ATTACHMENT A

Final Renewed Title V Operating Permit

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# Permit to Operate

**FACILITY:** S-3636

**EXPIRATION DATE:** 02/28/2021

**LEGAL OWNER OR OPERATOR:**  
**MAILING ADDRESS:**

PASTORIA ENERGY FACILITY, LLC  
39789 EDMONSTON PUMPING PLANT RD  
PO BOX 866  
LEBEC, CA 93243-0866

**FACILITY LOCATION:**

TEJON RANCH 30 MILES S OF BAKERSFIELD  
AND 6.5 MILES E OF GRAPEVINE  
RANCHO EL TEJON, CA

**FACILITY DESCRIPTION:**

POWER GENERATION

The Facility's Permit to Operate may include Facility-wide Requirements as well as requirements that apply to specific permit units.

This Permit to Operate remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require prior District approval. This permit shall be posted as prescribed in District Rule 2010.

Seyed Sadredin  
Executive Director / APCO

Arnaud Marjollet  
Director of Permit Services

# San Joaquin Valley Air Pollution Control District

FACILITY: S-3636-0-1

EXPIRATION DATE: 02/28/2021

## FACILITY-WIDE REQUIREMENTS

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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; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] 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; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] 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 and 9.13.1] 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 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

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: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

S-3636-0-1: Aug 30 2010 8:23AM - TORO

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
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 eight counties in the San Joaquin Valley)] 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, repack, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. 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 Rules 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 Rules 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 Rules 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 Rules 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 Rules 8061 and 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 Rules 8071 and 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  
These terms and conditions are part of the Facility-wide Permit to Operate.

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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
40. When applicable to 40 CFR Part 68, a subject facility shall submit to the proper authority a Risk Management Plan when mandated by the regulation. [40 CFR Part 68] Federally Enforceable Through Title V Permit
41. The owners and operators of each affected source and each affected unit at the source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a superceding Acid Rain permit issued by the permitting authority; and (ii) Have an Acid Rain permit. The Title V permit shall serve as the facility's Acid Rain permit. [40 CFR 72.9] Federally Enforceable Through Title V Permit
42. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
43. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide. [40 CFR 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
44. The owners and operators of each source and each affected unit at the source shall: (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide. [40 CFR 72.9 & 40 CFR 73] Federally Enforceable Through Title V Permit
45. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 72.9] Federally Enforceable Through Title V Permit
46. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. [40 CFR 72.9] Federally Enforceable Through Title V Permit
47. ~~An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 72.9(c)(1)(i), prior to the calendar year for which the allowance was allocated. [40 CFR 72.9] Federally Enforceable Through Title V Permit~~
48. ~~An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. [40 CFR 72.9] Federally Enforceable Through Title V Permit~~
49. An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right. [40 CFR 72.9] Federally Enforceable Through Title V Permit
50. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77. For the purposes of this condition, the term "excess emissions" is defined in 40 CFR 72.2. [40 CFR 72.9 & 40 CFR 77] 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.



51. The owners and operators of an affected unit that has excess emissions in any calendar year shall: (i) Pay without demand the penalty required, and pay up on demand the interest on that penalty; and (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77. For the purposes of this condition, the term "excess emissions" is defined in 40 CFR 72.2. [40 CFR 72.9 & 40 CFR 77] Federally Enforceable Through Title V Permit
52. The owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR part 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative; (ii) All emissions monitoring information, in accordance with 40 CFR part 75; (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program. [40 CFR 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
53. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 75 Subpart I. [40 CFR 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
54. Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source. [40 CFR 72.9] Federally Enforceable Through Title V Permit
55. **FACILITY OPERATION:** All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of the 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 Permit (SJ 99-03), III] Federally Enforceable Through Title V Permit
56. **MALFUNCTION: A. Reporting:** The EPA Regional Administrator shall be notified by telephone, facsimile, or electronic mail transmission within two (2) working days following 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 the PSD permit for units S-3636-1, S-3636-2, or S-3636-3. In addition, the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. The notification shall include all information required by Section IV.A of the PSD permit. 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 Section IV.B of the PSD permit. [PSD Permit (SJ 99-03), IV.A] Federally Enforceable Through Title V Permit
57. **MALFUNCTION: B. Treatment of Emissions:** 1. Definition of malfunction: A malfunction means a sudden and reasonably unforeseeable breakdown of equipment or of a process beyond the control of the source requiring immediate corrective action to restore normal operation. 2. Emissions in excess of the limits in the PSD permit conditions for permit units S-3636-1, S-3636-2, or S-3636-3 shall constitute a violation and may be the subject of enforcement proceedings. 3. Affirmative defense: In the context of an enforcement proceeding, excess emissions shall not be subject to penalty if the permittee demonstrates compliance with all of the requirements of Section IV.B.3 of the PSD permit. 4. 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 annual emission limits specified in PSD permit. [PSD Permit (SJ 99-03), IV.B] Federally Enforceable Through Title V Permit
58. **TRANSFER OF OWNERSHIP:** In the event of any changes in control or ownership of the facilities to be constructed, the PSD permit shall be binding on all subsequent owners and operators. The applicant shall notify the succeeding owner and operator of the existence of the PSD permit and its conditions by letter, a copy of which shall be forwarded to the EPA Regional Administrator and the State and local Air Pollution Control Agency. [PSD Permit (SJ 99-03), VI] 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.

59. **OTHER APPLICABLE REGULATIONS:** The owner and operator of the facility shall construct and operate the stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60, and 61 and all other applicable federal, state, and local air quality regulations. [PSD Permit (SJ 99-03), VIII] Federally Enforceable Through Title V Permit
60. Any requirements established by PSD permit for the gathering and reporting of information are not subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act because PSD permit is not an "information collection request" within the meaning of 44 U.S.C. §§ 3502(4), 3502 (11), 3507, 3512, and 3518. Furthermore, PSD permit and any information gathering and reporting requirements established by PSD permit are exempt from OMB review under the Paperwork Reduction Act because it is directed to fewer than ten persons, 44 U.S.C. § 3502(4) and § 3502(11); 5 CFR Part 1320.5(a). [PSD Permit (SJ 99-03), IX] Federally Enforceable Through Title V Permit
61. **District Notification:** All correspondence as required by the PSD permit shall be forwarded to the following address: Director, Permit Services Department, San Joaquin Valley Air Pollution Control District, 34946 Flyover Court; Bakersfield, CA 93308. [PSD Permit (SJ 99-03), XI] Federally Enforceable Through Title V Permit
62. On January 31, 2012, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, 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

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3636-1-8

EXPIRATION DATE: 02/28/2021

## EQUIPMENT DESCRIPTION:

168 MW NOMINALLY RATED GENERAL ELECTRIC 7FA NATURAL GAS FIRED GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS AND SELECTIVE CATALYTIC REDUCTION, WITH HRSG #1 AND 185 MW STEAM TURBINE #1 IN A TWO ON ONE COMBINED CYCLE WITH GAS TURBINE ENGINE S-3636-2

## PERMIT UNIT REQUIREMENTS

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1. Combustion turbine and electrical generator lube oil vents shall be equipped with mist eliminators to maintain visible emissions from lube oil vents no greater than 5% opacity, except for three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combustion turbine engine(GTE) shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
3. Heat recovery steam generator (HRSG) exhaust duct downstream of the SCR unit shall be equipped with continuously recording emissions monitors (CEM) for NOx, CO, and O2. All CEMs shall be dedicated to this unit and shall meet the requirements of 40 CFR Part 60 Appendices B & F (for CO), and 40 CFR Part 75 (for NOx and O2), and shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided the CEM(s) pass the relative accuracy requirements for startups and shutdown specified herein. If relative accuracy of CEM(s) cannot be certified during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained during source testing to determine compliance with emission limits in conditions 13, 17 and 18. [District Rule 2201 and PSD Permit (SJ 99-03) X.H.1] Federally Enforceable Through Title V Permit
4. HRSG exhaust duct shall be equipped with a continuously recording emission monitor upstream of the SCR unit for measuring the 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 Rule 2201] Federally Enforceable Through Title V Permit
5. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.3] Federally Enforceable Through Title V Permit
7. 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
8. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 8.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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9. GTE shall be fired exclusively on natural gas, consisting primarily of methane and ethane, with a sulfur content no greater than 0.75 grains of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rule 2201 and PSD Permit (SJ 99-03) X.K.] Federally Enforceable Through Title V Permit
10. Cold startup is defined as the period beginning with turbine initial firing until the unit meets the lb/hr and ppmv emission limits in condition 15. Cold startup means a startup when the combustion turbine has not been in operation during the preceding 72 hours. Duration of the cold startups shall not exceed 3 hours. [District Rules 2201 and 4703 and PSD Permit (SJ 99-03) X.G.5] Federally Enforceable Through Title V Permit
11. Only one of GTEs S-3636-1, '2 or '3 shall be in startup at any one time. [District Rule 2201 and PSD Permit (SJ 99-03) X.G.2] Federally Enforceable Through Title V Permit
12. Ammonia shall be injected when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F. Permittee shall monitor and record catalyst temperature during periods of startup. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During the cold startup GTE exhaust emissions shall not exceed any of the following: NOx (as NO2) - 130 lb, VOC - 273 lb or CO - 1235 lb, in any one hour. [District Rule 2201 and PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
14. Emission rates from GTE, except during startup and/or shutdown, shall not exceed any of the following: NOx (as NO2) - 17.03 lb/hr and 2.5 ppmvd @ 15% O2, VOC - 2.0 ppmvd @ 15% O2, CO - 24.92 lb/hr and 6 ppmvd @ 15% O2 or ammonia - 10 ppmvd @ 15% O2. NOx (as NO2) emission limit is a one-hour average. Ammonia emission limit is a twenty-four hour rolling average. All other emission limits are three-hour rolling averages. [District Rules 2201, 4703 and PSD Permit (SJ 99-03) X.D & .E] Federally Enforceable Through Title V Permit
15. Emission rates from the GTE shall not exceed either of the following: PM10 - 9.0 lb/hr and SOx (as SO2) - 3.495 lb/hr. Emission limits are three-hour rolling averages. [District Rules 2201, 4001, and PSD Permit (SJ 99-03) X.F] Federally Enforceable Through Title V Permit
16. On any day when a startup or shutdown occurs, emission rates from GTE shall not exceed any of the following: PM10 - 216 lb/day, SOx (as SO2) - 84 lb/day, NOx (as NO2) - 450 lb/day, VOC - 355 lb/day or CO - 2,113 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Combined annual emissions from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed any of the following: PM10 - 224,343 lb/year, SOx (as SO2) - 84,780 lb/year, NOx (as NO2) - 344,484 lb/year, VOC - 227,619 lb/year or CO - 1,220,166 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Combined annual emissions of all hazardous air pollutants (HAPS) from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed 25 tons/year. Combined annual emissions of any single HAP from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed 10 tons/year. [District Rule 4002] Federally Enforceable Through Title V Permit
19. Each one-hour period shall commence on the hour. Each one-hour period in a three-hour rolling average will commence on the hour. The three-hour average will be compiled from the three most recent one-hour periods. Each one-hour period in a twenty-four-hour average for ammonia slip will commence on the hour. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Daily emissions will be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each month in the twelve-consecutive-month rolling average emissions shall commence at the beginning of the first day of the month. ~~The twelve-consecutive-month rolling average emissions to determine compliance with annual emissions limitations shall be compiled from the twelve most recent calendar months.~~ [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: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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21. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O<sub>2</sub> = ((a-(bxc/1,000,000)) x 1,000,000 / b) x 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 NO<sub>x</sub> concentration ppmv at 15% O<sub>2</sub> across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Alternatively, permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District, to monitor compliance. At least 60 days prior to using a NH<sub>3</sub> CEM, the permittee must submit a monitoring plan for District review and approval. [District Rule 4102]
22. Compliance with the short term emission limits (ppmv @ 15% O<sub>2</sub> and lb/hr) shall be demonstrated annually by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm at full load conditions as follows - NO<sub>x</sub>: ppmvd @ 15% O<sub>2</sub> and lb/hr, CO: ppmvd @ 15% O<sub>2</sub> and lb/hr, VOC: ppmvd @ 15% O<sub>2</sub> and lb/hr, PM<sub>10</sub>: lb/hr, and ammonia: ppmvd @ 15% O<sub>2</sub>. Sample collection to demonstrate compliance with ammonia emission limit shall be based on three consecutive test runs of thirty minutes each. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.1] Federally Enforceable Through Title V Permit
23. Compliance with the startup NO<sub>x</sub>, CO, and VOC mass emission limits shall be demonstrated for one of the GTEs (S-3636-1, '2, or '3) at least once every seven years by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm. CEM relative accuracy shall be determined during startup source testing in accordance with methodology approved by the District. If CEM data is not certifiable to determine compliance with NO<sub>x</sub> and CO startup emissions limits, then source testing to measure startup NO<sub>x</sub> and CO mass emissions rates shall be conducted at least once every 12 months. [District Rule 1081] Federally Enforceable Through Title V Permit
24. Based on the initial speciated HAPS and total VOC source test conducted for one of the GTEs (S-3636-1, '2 or '3), Pastoria shall correlate the total HAPS emissions rate and the single highest HAP emission rate to the VOC mass emission determined during the speciated HAPS source test. Annual compliance with the HAPS emissions limit (25 tpy all HAPS or 10 tpy any single HAP) shall be by the combined VOC emissions rates for the GTEs (S-3636-1, '2 and '3) determined during annual compliance source testing and the correlation between VOC emissions and HAP(S). [District Rule 4002] Federally Enforceable Through Title V Permit
25. Compliance with natural gas sulfur content limit shall be demonstrated periodically as required by 40 CFR 60 Subpart GG and 40 CFR 75. [District Rules 2540 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
26. 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. Official test results and field data collected by source tests required by conditions on this permit shall be submitted to the District within 60 days of testing. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.2] Federally Enforceable Through Title V Permit
27. Source test plans for seven-year source tests shall include a method for measuring the VOC/CO surrogate relationship that will be used to demonstrate compliance with VOC lb/hr, lb/day, and lb/twelve month rolling emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
28. The following test methods shall be used PM<sub>10</sub>: EPA method 5 (front half and back half), NO<sub>x</sub>: EPA Method 7E or 20, CO: EPA method 10 or 10B, O<sub>2</sub>: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081, 4001, 4703, and PSD Permit (SJ 99-03) X.C.2] Federally Enforceable Through Title V Permit
29. The permittee shall maintain hourly records of NO<sub>x</sub>, CO, and ammonia emission concentrations (ppmv @ 15% O<sub>2</sub>), and hourly, daily, and twelve month rolling average records of NO<sub>x</sub> 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. [District Rule 2201] Federally Enforceable Through Title V Permit
30. The permittee shall maintain records of SO<sub>x</sub> lb/hr, lb/day, and lb/twelve month rolling average emission. SO<sub>x</sub> emissions shall be based on fuel use records, natural gas sulfur content, and mass balance calculations. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] 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: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.6 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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31. Permittee shall maintain the following records for the GIE: occurrence, duration, and type of any startup, shutdown, or malfunction; performance testing; emission measurements; total daily and rolling twelve month average hours of operation; hourly quantity of fuel used and gross three hour average operating load. [District Rules 2201 & 4703] Federally Enforceable Through Title V Permit
32. Permittee shall maintain the following records for the continuous emissions monitoring system (CEMS): performance testing, evaluations, calibrations, checks, maintenance, adjustments, and any period during which a CEMS was inoperative. [District Rules 2201 & 4703, and PSD Permit (SJ 99-03) X.I.1] Federally Enforceable Through Title V Permit
33. Permittee shall provide notification and record keeping as required under 40 CFR, Part 60, Subpart A, 60.7. [District Rule 4001] Federally Enforceable Through Title V Permit
34. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
35. Results of continuous emissions monitoring shall 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 ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
36. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
38. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rule 1080 and PSD Permit (SJ 99-03) X.I.3] Federally Enforceable Through Title V Permit
39. The combined annual emissions rate from all three CTGs and emergency engines S-3636-7-4 & -12-1, based on 12-month rolling average, must not exceed 344,485 lbs NOx and 1,140,000 lbs CO. [PSD Permit (SJ 99-03) X.D & .E] Federally Enforceable Through Title V Permit
40. The annual SOx emissions from each CTG, based on 12-month rolling average, must not exceed 28,170 lbs. [PSD Permit (SJ 99-03) X.F] Federally Enforceable Through Title V Permit
41. During the hot startup of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 107 lbs of NOx or 903 lbs of CO in any one hour. Hot startup means a startup when the combustion turbine has been in operation during the preceding 8 hours and duration of hot start-ups shall not exceed 1 hour. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
42. During the warm startup of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 119 lbs of NOx or 1021 lbs of CO in any one hour. Warm startup means a startup that is not a hot or cold startup and duration of warm startups shall not exceed 2.5 hours. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
43. During the Shutdown of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 58.5 lbs of NOx or 222.5 lbs of CO in any one hour. Shutdown shall be defined as the period beginning with the lowering of equipment from base load and lasting until fuel flow is completely off and combustion has ceased and duration of shutdowns shall not exceed one half hour. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

44. Any excess emission indicated by the CEM system must be considered a violation of the applicable emission limit in the PSD permit. [PSD Permit (SJ 99-03) X.I.4] Federally Enforceable Through Title V Permit
45. The quality assurance project plan used by the Permittee for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 CFR Part 60, Appendix F, must be available upon request to EPA. [PSD Permit (SJ 99-03) X.I.5] 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-3636-2-8

EXPIRATION DATE: 02/28/2021

## EQUIPMENT DESCRIPTION:

168 MW NOMINALLY RATED GENERAL ELECTRIC 7FA NATURAL GAS FIRED GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, SELECTIVE CATALYTIC REDUCTION, HRSG #2, AND A SINGLE 185 MW STEAM TURBINE #1 SHARED WITH GAS TURBINE ENGINE S-3636-1

## PERMIT UNIT REQUIREMENTS

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1. Combustion turbine and electrical generator lube oil vents shall be equipped with mist eliminators to maintain visible emissions from lube oil vents no greater than 5% opacity, except for three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combustion turbine engine(GTE) shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
3. Heat recovery steam generator (HRSG) exhaust duct downstream of the SCR unit shall be equipped with continuously recording emissions monitors (CEM) for NOx, CO, and O2. All CEMs shall be dedicated to this unit and shall meet the requirements of 40 CFR Part 60 Appendices B & F (for CO), and 40 CFR Part 75 (for NOx and O2), and shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided the CEM(s) pass the relative accuracy requirements for startups and shutdown specified herein. If relative accuracy of CEM(s) cannot be certified during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained during source testing to determine compliance with emission limits in conditions 13, 17 and 18. [District Rule 2201 and PSD Permit (SJ 99-03) X.H.1] Federally Enforceable Through Title V Permit
4. HRSG exhaust duct shall be equipped with a continuously recording emission monitor upstream of the SCR unit for measuring the 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 Rule 2201] Federally Enforceable Through Title V Permit
5. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.3] Federally Enforceable Through Title V Permit
7. 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
8. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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9. GTE shall be fired exclusively on natural gas, consisting primarily of methane and ethane, with a sulfur content no greater than 0.75 grains of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rule 2201 and PSD Permit (SJ 99-03) X.K.] Federally Enforceable Through Title V Permit
10. Cold startup is defined as the period beginning with turbine initial firing until the unit meets the lb/hr and ppmv emission limits in condition 15. Cold startup means a startup when the combustion turbine has not been in operation during the preceding 72 hours. Duration of the cold startups shall not exceed 3 hours. [District Rules 2201 and 4703 and PSD Permit (SJ 99-03) X.G.5] Federally Enforceable Through Title V Permit
11. Only one of GTEs S-3636-1, '2 or '3 shall be in startup at any one time. [District Rule 2201 and PSD Permit (SJ 99-03) X.G.2] Federally Enforceable Through Title V Permit
12. Ammonia shall be injected when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F. Permittee shall monitor and record catalyst temperature during periods of startup. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During the cold startup GTE exhaust emissions shall not exceed any of the following: NOx (as NO2) - 130 lb, VOC - 273 lb or CO - 1235 lb, in any one hour. [District Rule 2201 and PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
14. Emission rates from GTE, except during startup and/or shutdown, shall not exceed any of the following: NOx (as NO2) - 17.03 lb/hr and 2.5 ppmvd @ 15% O2, VOC - 2.0 ppmvd @ 15% O2, CO - 24.92 lb/hr and 6 ppmvd @ 15% O2 or ammonia - 10 ppmvd @ 15% O2. NOx (as NO2) emission limit is a one-hour average. Ammonia emission limit is a twenty-four hour rolling average. All other emission limits are three-hour rolling averages. [District Rules 2201, 4703 and PSD Permit (SJ 99-03) X.D & .E] Federally Enforceable Through Title V Permit
15. Emission rates from the GTE shall not exceed either of the following: PM10 - 9.0 lb/hr and SOx (as SO2) - 3.495 lb/hr. Emission limits are three-hour rolling averages. [District Rules 2201, 4001, and PSD Permit (SJ 99-03) X.F] Federally Enforceable Through Title V Permit
16. On any day when a startup or shutdown occurs, emission rates from GTE shall not exceed any of the following: PM10 - 216 lb/day, SOx (as SO2) - 84 lb/day, NOx (as NO2) - 450 lb/day, VOC - 355 lb/day or CO - 2,113 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Combined annual emissions from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed any of the following: PM10 - 224,343 lb/year, SOx (as SO2) - 84,780 lb/year, NOx (as NO2) - 344,484 lb/year, VOC - 227,619 lb/year or CO - 1,220,166 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Combined annual emissions of all hazardous air pollutants (HAPS) from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed 25 tons/year. Combined annual emissions of any single HAP from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed 10 tons/year. [District Rule 4002] Federally Enforceable Through Title V Permit
19. Each one-hour period shall commence on the hour. Each one-hour period in a three-hour rolling average will commence on the hour. The three-hour average will be compiled from the three most recent one-hour periods. Each one-hour period in a twenty-four-hour average for ammonia slip will commence on the hour. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Daily emissions will be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each month in the twelve-consecutive-month rolling average emissions shall commence at the beginning of the first day of the month. The twelve-consecutive-month rolling average emissions to determine compliance with annual emissions limitations shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

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Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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21. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O<sub>2</sub> = ((a-(bxc/1,000,000)) x 1,000,000 / b) x 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 NO<sub>x</sub> concentration ppmv at 15% O<sub>2</sub> across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Alternatively, permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District, to monitor compliance. At least 60 days prior to using a NH<sub>3</sub> CEM, the permittee must submit a monitoring plan for District review and approval. [District Rule 4102]
22. Compliance with the short term emission limits (ppmv @ 15% O<sub>2</sub> and lb/hr) shall be demonstrated annually by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm at full load conditions as follows - NO<sub>x</sub>: ppmvd @ 15% O<sub>2</sub> and lb/hr, CO: ppmvd @ 15% O<sub>2</sub> and lb/hr, VOC: ppmvd @ 15% O<sub>2</sub> and lb/hr, PM<sub>10</sub>: lb/hr, and ammonia: ppmvd @ 15% O<sub>2</sub>. Sample collection to demonstrate compliance with ammonia emission limit shall be based on three consecutive test runs of thirty minutes each. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.1] Federally Enforceable Through Title V Permit
23. Compliance with the startup NO<sub>x</sub>, CO, and VOC mass emission limits shall be demonstrated for one of the GTEs (S-3636-1, '2, or '3) at least once every seven years by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm. CEM relative accuracy shall be determined during startup source testing in accordance with methodology approved by the District. If CEM data is not certifiable to determine compliance with NO<sub>x</sub> and CO startup emissions limits, then source testing to measure startup NO<sub>x</sub> and CO mass emissions rates shall be conducted at least once every 12 months. [District Rule 1081] Federally Enforceable Through Title V Permit
24. Based on the initial speciated HAPS and total VOC source test conducted for one of the GTEs (S-3636-1, '2 or '3), Pastoria shall correlate the total HAPS emissions rate and the single highest HAP emission rate to the VOC mass emission determined during the speciated HAPs source test. Annual compliance with the HAPS emissions limit (25 tpy all HAPS or 10 tpy any single HAP) shall be by the combined VOC emissions rates for the GTEs (S-3636-1, '2 and '3) determined during annual compliance source testing and the correlation between VOC emissions and HAP(S). [District Rule 4002] Federally Enforceable Through Title V Permit
25. Compliance with natural gas sulfur content limit shall be demonstrated periodically as required by 40 CFR 60 Subpart GG and 40 CFR 75. [District Rules 2540 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
26. 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. Official test results and field data collected by source tests required by conditions on this permit shall be submitted to the District within 60 days of testing. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.2] Federally Enforceable Through Title V Permit
27. Source test plans for seven-year source tests shall include a method for measuring the VOC/CO surrogate relationship that will be used to demonstrate compliance with VOC lb/hr, lb/day, and lb/twelve month rolling emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
28. The following test methods shall be used PM<sub>10</sub>: EPA method 5 (front half and back half), NO<sub>x</sub>: EPA Method 7E or 20, CO: EPA method 10 or 10B, O<sub>2</sub>: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081, 4001, 4703, and PSD Permit (SJ 99-03) X.C.2] Federally Enforceable Through Title V Permit
29. The permittee shall maintain hourly records of NO<sub>x</sub>, CO, and ammonia emission concentrations (ppmv @ 15% O<sub>2</sub>), and hourly, daily, and twelve month rolling average records of NO<sub>x</sub> 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. [District Rule 2201] Federally Enforceable Through Title V Permit
30. The permittee shall maintain records of SO<sub>x</sub> lb/hr, lb/day, and lb/twelve month rolling average emission. SO<sub>x</sub> emissions shall be based on fuel use records, natural gas sulfur content, and mass balance calculations. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] 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: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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31. Permittee shall maintain the following records for the GTE: occurrence, duration, and type of any startup, shutdown, or malfunction; performance testing; emission measurements; total daily and rolling twelve month average hours of operation; hourly quantity of fuel used and gross three hour average operating load. [District Rules 2201 & 4703] Federally Enforceable Through Title V Permit
32. Permittee shall maintain the following records for the continuous emissions monitoring system (CEMS): performance testing, evaluations, calibrations, checks, maintenance, adjustments, and any period during which a CEMS was inoperative. [District Rules 2201 & 4703, and PSD Permit (SJ 99-03) X.I.1] Federally Enforceable Through Title V Permit
33. Permittee shall provide notification and record keeping as required under 40 CFR, Part 60, Subpart A, 60.7. [District Rule 4001] Federally Enforceable Through Title V Permit
34. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
35. Results of continuous emissions monitoring shall 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 ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
36. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
38. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rule 1080 and PSD Permit (SJ 99-03) X.I.3] Federally Enforceable Through Title V Permit
39. The combined annual emissions rate from all three CTGs and emergency engines S-3636-7-4 & -12-41 based on 12-month rolling average, must not exceed 344,485 lbs NOx and 1,140,000 lbs CO. [PSD Permit (SJ 99-03) X.D & .E] Federally Enforceable Through Title V Permit
40. The annual SOx emissions from each CTG, based on 12-month rolling average, must not exceed 28,170 lbs. [PSD Permit (SJ 99-03) X.F] Federally Enforceable Through Title V Permit
41. During the hot startup of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 107 lbs of NOx or 903 lbs of CO in any one hour. Hot startup means a startup when the combustion turbine has been in operation during the preceding 8 hours and duration of hot start-ups shall not exceed 1 hour. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
42. During the warm startup of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 119 lbs of NOx or 1021 lbs of CO in any one hour. Warm startup means a startup that is not a hot or cold startup and duration of warm startups shall not exceed 2.5 hours. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
43. During the Shutdown of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 58.5 lbs of NOx or 222.5 lbs of CO in any one hour. Shutdown shall be defined as the period beginning with the lowering of equipment from base load and lasting until fuel flow is completely off and combustion has ceased and duration of shutdowns shall not exceed one half hour. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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44. Any excess emission indicated by the CEM system must be considered a violation of the applicable emission limit in the PSD permit. [PSD Permit (SJ 99-03) X.I.4] Federally Enforceable Through Title V Permit
45. The quality assurance project plan used by the Permittee for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 CFR Part 60, Appendix F, must be available upon request to EPA. [PSD Permit (SJ 99-03) X.I.5] Federally Enforceable Through Title V Permit

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Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3636-3-8

**EXPIRATION DATE:** 02/28/2021

**EQUIPMENT DESCRIPTION:**

168 MW NOMINALLY RATED GENERAL ELECTRIC 7FA NATURAL GAS FIRED GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, SELECTIVE CATALYTIC REDUCTION, HRSG #1 AND 90 MW STEAM TURBINE #2

## PERMIT UNIT REQUIREMENTS

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1. Combustion turbine and electrical generator lube oil vents shall be equipped with mist eliminators to maintain visible emissions from lube oil vents no greater than 5% opacity, except for three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combustion turbine engine(GTE) shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
3. Heat recovery steam generator (HRSG) exhaust duct downstream of the SCR unit shall be equipped with continuously recording emissions monitors (CEM) for NOx, CO, and O2. All CEMs shall be dedicated to this unit and shall meet the requirements of 40 CFR Part 60 Appendices B & F (for CO), and 40 CFR Part 75 (for NOx and O2), and shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided the CEM(s) pass the relative accuracy requirements for startups and shutdown specified herein. If relative accuracy of CEM(s) cannot be certified during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained during source testing to determine compliance with emission limits in conditions 13, 17 and 18. [District Rule 2201 and PSD Permit (SJ 99-03) X.H.1] Federally Enforceable Through Title V Permit
4. Results of continuous emissions monitoring shall 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 ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
5. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
6. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
7. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rule 1080 and PSD Permit (SJ 99-03) X.I.3] Federally Enforceable Through Title V Permit

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8. The combined annual emissions rate from all three CTGs and emergency engines S-3636-7-4 & -12-1, based on 12-month rolling average, must not exceed 344,485 lbs NOx and 1,140,000 lbs CO. [PSD Permit (SJ 99-03) X.D & .E] Federally Enforceable Through Title V Permit
9. The annual SOx emissions from each CTG, based on 12-month rolling average, must not exceed 28,170 lbs. [PSD Permit (SJ 99-03) X.F] Federally Enforceable Through Title V Permit
10. During the hot startup of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 107 lbs of NOx or 903 lbs of CO in any one hour. Hot startup means a startup when the combustion turbine has been in operation during the preceding 8 hours and duration of hot start-ups shall not exceed 1 hour. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
11. HRSG exhaust duct shall be equipped with a continuously recording emission monitor upstream of the SCR unit for measuring the 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 Rule 2201] Federally Enforceable Through Title V Permit
12. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.3] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. GTE shall be fired exclusively on natural gas, consisting primarily of methane and ethane, with a sulfur content no greater than 0.75 grains of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
17. Cold startup is defined as the period beginning with turbine initial firing until the unit meets the lb/hr and ppmv emission limits in condition 15. Cold startup means a startup when the combustion turbine has not been in operation during the preceding 72 hours. Duration of the cold startups shall not exceed 3 hours. [District Rules 2201 and 4703 and PSD Permit (SJ 99-03) X.G.5] Federally Enforceable Through Title V Permit
18. Only one of GTEs S-3636-1, '2 or '3 shall be in startup at any one time. [District Rule 2201 and PSD Permit (SJ 99-03) X.G.2] Federally Enforceable Through Title V Permit
19. Ammonia shall be injected when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F. Permittee shall monitor and record catalyst temperature during periods of startup. [District Rule 2201] Federally Enforceable Through Title V Permit
20. During the cold startup GTE exhaust emissions shall not exceed any of the following: NOx (as NO2) - 130 lb, VOC - 273 lb or CO - 1235 lb, in any one hour. [District Rule 2201 and PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
21. Emission rates from GTE, except during startup and/or shutdown, shall not exceed any of the following: NOx (as NO2) - 17.03 lb/hr and 2.5 ppmvd @ 15% O2, VOC - 2.0 ppmvd @ 15% O2, CO - 24.92 lb/hr and 6 ppmvd @ 15% O2 or ammonia - 10 ppmvd @ 15% O2. NOx (as NO2) emission limit is a one-hour average. Ammonia emission limit is a twenty-four hour rolling average. All other emission limits are three-hour rolling averages. [District Rules 2201, 4703 and PSD Permit (SJ 99-03) X.D & .E] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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22. Emission rates from the GTE shall not exceed either of the following: PM10 - 9.0 lb/hr and SOx (as SO2) - 3.495 lb/hr. Emission limits are three-hour rolling averages. [District Rules 2201, 4001, and PSD Permit (SJ 99-03) X.F] Federally Enforceable Through Title V Permit
23. On any day when a startup or shutdown occurs, emission rates from GTE shall not exceed any of the following: PM10 - 216 lb/day, SOx (as SO2) - 84 lb/day, NOx (as NO2) - 450 lb/day, VOC - 355 lb/day or CO - 2,113 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Combined annual emissions from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed any of the following: PM10 - 224,343 lb/year, SOx (as SO2) - 84,780 lb/year, NOx (as NO2) - 344,484 lb/year, VOC - 227,619 lb/year or CO - 1,220,166 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Combined annual emissions of all hazardous air pollutants (HAPS) from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed 25 tons/year. Combined annual emissions of any single HAP from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed 10 tons/year. [District Rule 4002] Federally Enforceable Through Title V Permit
26. Each one-hour period shall commence on the hour. Each one-hour period in a three-hour rolling average will commence on the hour. The three-hour average will be compiled from the three most recent one-hour periods. Each one-hour period in a twenty-four-hour average for ammonia slip will commence on the hour. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Daily emissions will be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each month in the twelve-consecutive-month rolling average emissions shall commence at the beginning of the first day of the month. The twelve-consecutive-month rolling average emissions to determine compliance with annual emissions limitations shall be compiled from the twelve most recent calendar months. [District Rule 2201] 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)) x 1,000,000 / b) x 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. Alternatively, permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District, to monitor compliance. At least 60 days prior to using a NH3 CEM, the permittee must submit a monitoring plan for District review and approval. [District Rule 4102]
29. Compliance with the short term emission limits (ppmv @ 15% O2 and lb/hr) shall be demonstrated annually by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm at full load conditions as follows - NOx: ppmvd @ 15% O2 and lb/hr, CO: ppmvd @ 15% O2 and lb/hr, VOC: ppmvd @ 15% O2 and lb/hr, PM10: lb/hr, and ammonia: ppmvd @ 15% O2. Sample collection to demonstrate compliance with ammonia emission limit shall be based on three consecutive test runs of thirty minutes each. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.1] Federally Enforceable Through Title V Permit
30. Compliance with the startup NOx, CO, and VOC mass emission limits shall be demonstrated for one of the GTEs (S-3636-1, '2, or '3) at least once every seven years by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm. CEM relative accuracy shall be determined during startup source testing in accordance with methodology approved by the District. If CEM data is not certifiable to determine compliance with NOx and CO startup emissions limits, then source testing to measure startup NOx and CO mass emissions rates shall be conducted at least once every 12 months. [District Rule 1081] Federally Enforceable Through Title V Permit
31. Based on the initial speciated HAPS and total VOC source test conducted for one of the GTEs (S-3636-1, '2 or '3), Pastoria shall correlate the total HAPS emissions rate and the single highest HAP emission rate to the VOC mass emission determined during the speciated HAPS source test. Annual compliance with the HAPS emissions limit (25 tpy all HAPS or 10 tpy any single HAP) shall be by the combined VOC emissions rates for the GTEs (S-3636-1, '2 and '3) determined during annual compliance source testing and the correlation between VOC emissions and HAP(S). [District Rule 4002] 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. Compliance with natural gas sulfur content limit shall be demonstrated periodically as required by 40 CFR 60 Subpart GG and 40 CFR 75. [District Rules 2540 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
33. 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. Official test results and field data collected by source tests required by conditions on this permit shall be submitted to the District within 60 days of testing. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.2] Federally Enforceable Through Title V Permit
34. Source test plans for seven-year source tests shall include a method for measuring the VOC/CO surrogate relationship that will be used to demonstrate compliance with VOC lb/hr, lb/day, and lb/twelve month rolling emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
35. 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, O2: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD S'I-1B, and fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081, 4001, 4703, and PSD Permit (SJ 99-03) X.C.2] Federally Enforceable Through Title V Permit
36. The permittee shall maintain hourly records of NOx, CO, and ammonia emission concentrations (ppmv @ 15% O2), and hourly, daily, and twelve month rolling 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. [District Rule 2201] Federally Enforceable Through Title V Permit
37. The permittee shall maintain records of SOx lb/hr, lb/day, and lb/twelve month rolling average emission. SOx emissions shall be based on fuel use records, natural gas sulfur content, and mass balance calculations. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
38. Permittee shall maintain the following records for the GTE: occurrence, duration, and type of any startup, shutdown, or malfunction; performance testing; emission measurements; total daily and rolling twelve month average hours of operation; hourly quantity of fuel used and gross three hour average operating load. [District Rules 2201 & 4703] Federally Enforceable Through Title V Permit
39. Permittee shall maintain the following records for the continuous emissions monitoring system (CEMS): performance testing, evaluations, calibrations, checks, maintenance, adjustments, and any period during which a CEMS was inoperative. [District Rules 2201 & 4703, and PSD Permit (SJ 99-03) X.I.1] Federally Enforceable Through Title V Permit
40. Permittee shall provide notification and record keeping as required under 40 CFR, Part 60, Subpart A, 60.7. [District Rule 4001] Federally Enforceable Through Title V Permit
41. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
42. During the warm startup of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 119 lbs of NOx or 1021 lbs of CO in any one hour. Warm startup means a startup that is not a hot or cold startup and duration of warm startups shall not exceed 2.5 hours. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
43. During the Shutdown of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 58.5 lbs of NOx or 222.5 lbs of CO in any one hour. Shutdown shall be defined as the period beginning with the lowering of equipment from base load and lasting until fuel flow is completely off and combustion has ceased and duration of shutdowns shall not exceed one half hour. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
44. Any excess emission indicated by the CEM system must be considered a violation of the applicable emission limit in the PSD permit. [PSD Permit (SJ 99-03) X.I.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: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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45. The quality assurance project plan used by the Permittee for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 CFR Part 60, Appendix F, must be available upon request to EPA. [PSD Permit (SJ 99-03) X.I.5] Federally Enforceable Through Title V Permit

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

Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

S-3636-3-8 : Aug 30 2010 8:23AM - TORID

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3636-4-5

**EXPIRATION DATE:** 02/28/2021

**EQUIPMENT DESCRIPTION:**

FORCED DRAFT COOLING TOWER WITH 8 CELLS AND HIGH EFFICIENCY DRIFT ELIMINATOR

## PERMIT UNIT REQUIREMENTS

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1. Permittee shall maintain and make available to the District upon request vendor supplied justification for the correction factor used to correlate blowdown TDS to drift TDS and correct for the amount of drift that stays suspended in the atmosphere. Correction factor is used in the equation below to calculate cooling tower PM10 emissions rate. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012 and 40 CFR 63.402] Federally Enforceable Through Title V Permit
3. Drift eliminator drift rate shall not exceed 0.0005%. [District Rule 2201] Federally Enforceable Through Title V Permit
4. PM10 emission rate shall not exceed 22.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Compliance with the PM10 daily emission limit shall be demonstrated as follows:  $PM10 \text{ lb/day} = \text{circulating water recirculation rate} \times \text{total dissolved solids concentration in the blowdown water} \times \text{design drift rate} \times \text{correction factor}$ . [District Rule 2201] Federally Enforceable Through Title V Permit
6. Compliance with PM10 emission limit shall be determined by blowdown water sample analysis by independent laboratory at least weekly. [District Rule 1081] 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-3636-5-5

**EXPIRATION DATE:** 02/28/2021

**EQUIPMENT DESCRIPTION:**

4 CELL FORCED DRAFT COOLING TOWER WITH HIGH EFFICIENCY CELLULAR DRIFT ELIMINATOR

## **PERMIT UNIT REQUIREMENTS**

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1. Permittee shall maintain and make available to the District upon request vendor supplied justification for the correction factor used to correlate blowdown TDS to drift TDS and correct for the amount of drift that stays suspended in the atmosphere. Correction factor is used in the equation below to calculate cooling tower PM10 emissions rate. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012 and 40 CFR 63.402] Federally Enforceable Through Title V Permit
3. Drift eliminator drift rate shall not exceed 0.0005%. [District Rule 2201] Federally Enforceable Through Title V Permit
4. PM10 emission rate shall not exceed 11.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Compliance with the PM10 daily emission limit shall be demonstrated as follows:  $PM10 \text{ lb/day} = \text{circulating water recirculation rate} * \text{total dissolved solids concentration in the blowdown water} * \text{design drift rate} * \text{correction factor}$ . [District Rule 2201] Federally Enforceable Through Title V Permit
6. Compliance with PM10 emission limit shall be determined by blowdown water sample analysis by independent laboratory at least weekly. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

6-3636-5-5; Aug 30 2016 8:23AM - TORID

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3636-7-6

**EXPIRATION DATE:** 02/28/2021

**EQUIPMENT DESCRIPTION:**

814 HP CATERPILLAR MODEL G3512 SC TA NATURAL GAS FIRED IC ENGINE DRIVING AN EMERGENCY ELECTRICAL GENERATOR WITH THREE-WAY EXHAUST CATALYST

## PERMIT UNIT REQUIREMENTS

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The sulfur content of the natural gas fuel shall not exceed 0.75 grain/100 scf. [District Rule 2201 and PSD Permit (SJ 99-03) X.K.] Federally Enforceable Through Title V Permit
3. Emissions from this IC engine shall not exceed any of the following limits: 1.84 lb NOx/hr, 3.62 lb CO/hr, 0.11 lb PM10/hr or 0.23 lb VOC/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This engine shall be equipped with a nonresettable elapsed operating time meter. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system manufacturer. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
7. This engine shall be operated only for maintenance, testing, and 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, as determined by an operational nonresettable elapsed operating time meter. [District Rule 2201, 4702, PSD Permit (SJ 99-03) X.L.2, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
8. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
9. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. The engines shall not be used to increase the quantity of electricity generated for sale. [District Rule 4702 and PSD Permit (SJ 99-03) X.L.2] Federally Enforceable Through Title V Permit
10. During periods of maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (e.g. oil pressure, exhaust gas temperature, etc.). [District Rule 4702] Federally Enforceable Through Title V Permit
11. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the number of hours of operation, the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.), the type of fuel used, and records of operational characteristics monitoring. Such records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 4702 and 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: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.6 MILES E OF GRAPEVINE, RANCHO EL TEJON, 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] Federally Enforceable Through Title V Permit
13. This engine shall be equipped with a three-way catalyst. [PSD Permit (SJ 99-03) X.L.5] Federally Enforceable Through Title V Permit
14. The facility shall not operate the engine during start-up or shut-down of a turbine, except during emergency situations. [PSD Permit (SJ 99-03) X.L.3] Federally Enforceable Through Title V Permit
15. The permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first; inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR Part 63.6603(a)] 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-3636-12-2

EXPIRATION DATE: 02/28/2021

## EQUIPMENT DESCRIPTION:

360 HP JOHN DEERE COMPANY MODEL JW6H-UF-60 DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIRE WATER PUMP

## PERMIT UNIT REQUIREMENTS

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1. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. 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
4. Emissions from this engine shall not exceed any of the following limits: 5.6 g-NOx/hp-hr, 0.29 g-CO/hp-hr or 0.11 g-VOC/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The PM10 emissions rate shall not exceed 0.07 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rule 2201 and District Rule 4102] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
7. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 17 CCR 93115, PSD Permit (SJ 99-03) X.L.2, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
9. An emergency situation is an unscheduled event caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
10. 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, emergency fire fighting, 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, 17 CCR 93115, and 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: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

S-3636-12-2: Aug 30 2016 8:23AM - TORID

11. 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
12. The diesel fire pump engine shall be equipped with a turbocharger and intercooler/aftercooler. [PSD Permit (SJ 99-03) X.L.4] Federally Enforceable Through Title V Permit
13. The facility shall not operate the engine during start-up or shut-down of a turbine, except during emergency situations. [PSD Permit (SJ 99-03) X.L.3] Federally Enforceable Through Title V Permit
14. The permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first; inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR Part 63.6603(a)] 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-3636-13-2

**EXPIRATION DATE:** 02/28/2021

**EQUIPMENT DESCRIPTION:**

CONFINED ABRASIVE BLASTING OPERATION WITH A 50 LB ECONOLINE ABRASIVE PRODUCTS RA 60 X 48 CB  
BLASTING UNIT SERVED BY A ECONOLINE ABRASIVE PRODUCTS RA 400-60 DUST COLLECTOR

## PERMIT UNIT REQUIREMENTS

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1. The blasting operations shall be carried out in a manner to prevent any nuisances. [District Rule 4102]
2. All abrasive blasting shall be conducted in accordance with California Code of Regulations Title 17, Subchapter 6, Sections 92000 through 92540. [92000 through 92540 CCR]
3. A used certified abrasive shall not be considered certified for reuse unless the abrasive conforms to its original cut-point fineness. [92530 CCR]
4. Abrasive blasting operations conducted within a permanent building shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann 1 or equivalent to 20% opacity. [92200 CCR]

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

Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

S-3636-13-2: Aug 30 2016 8:23AM - TORID



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# ATTACHMENT B

Previous Title V Operating Permit

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# San Joaquin Valley Air Pollution Control District

FACILITY: S-3636-0-0

EXPIRATION DATE: 02/29/2016

## FACILITY-WIDE REQUIREMENTS

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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 and Kern County Rule 111] 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 and Kern County Rule 111] 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 and 9.13.1] 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 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

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: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 8.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

S-3636-0-0: May 23 2016 2:14PM - TORID

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
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 and PSD Permit (99-03), VII] 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 and PSD Permit (99-03), V] 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 and PSD Permit (99-03), V] 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 and PSD Permit (99-03), V] 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 and PSD Permit (99-03), V] 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.

47. An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 72.9(c)(1)(i), prior to the calendar year for which the allowance was allocated. [40 CFR 72.9] Federally Enforceable Through Title V Permit
48. An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. [40 CFR 72.9] Federally Enforceable Through Title V Permit
49. An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right. [40 CFR 72.9] Federally Enforceable Through Title V Permit
50. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77. For the purposes of this condition, the term "excess emissions" is defined in 40 CFR 72.2. [40 CFR 72.9 & 40 CFR 77] Federally Enforceable Through Title V Permit
51. The owners and operators of an affected unit that has excess emissions in any calendar year shall: (i) Pay without demand the penalty required, and pay up on demand the interest on that penalty; and (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77. For the purposes of this condition, the term "excess emissions" is defined in 40 CFR 72.2. [40 CFR 72.9 & 40 CFR 77] Federally Enforceable Through Title V Permit
52. The owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR part 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative; (ii) All emissions monitoring information, in accordance with 40 CFR part 75; (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program. [40 CFR 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
53. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 75 Subpart I. [40 CFR 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
54. Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source. [40 CFR 72.9] Federally Enforceable Through Title V Permit
55. FACILITY OPERATION: All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of the 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 Permit (SJ 99-03), III] Federally Enforceable Through Title V Permit
56. MALFUNCTION: A. Reporting: The EPA Regional Administrator shall be notified by telephone, facsimile, or electronic mail transmission within two (2) working days following 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 the PSD permit for units S-3636-1, S-3636-2, or S-3636-3. In addition, the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. The notification shall include all information required by Section IV.A of the PSD permit. 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 Section IV.B of the PSD permit. [PSD Permit (SJ SJ 99-03), IV.A] 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.

57. **MALFUNCTION: B. Treatment of Emissions:** 1. Definition of malfunction: A malfunction means a sudden and reasonably unforeseeable breakdown of equipment or of a process beyond the control of the source requiring immediate corrective action to restore normal operation. 2. Emissions in excess of the limits in the PSD permit conditions for permit units S-3636-1, S-3636-2, or S-3636-3 shall constitute a violation and may be the subject of enforcement proceedings. 3. Affirmative defense: In the context of an enforcement proceeding, excess emissions shall not be subject to penalty if the permittee demonstrates compliance with all of the requirements of Section IV.B.3 of the PSD permit. 4. 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 annual emission limits specified in PSD permit. [PSD Permit (SJ SJ 99-03), IV.B] Federally Enforceable Through Title V Permit
58. **TRANSFER OF OWNERSHIP:** In the event of any changes in control or ownership of the facilities to be constructed, the PSD permit shall be binding on all subsequent owners and operators. The applicant shall notify the succeeding owner and operator of the existence of the PSD permit and its conditions by letter, a copy of which shall be forwarded to the EPA Regional Administrator and the State and local Air Pollution Control Agency. [PSD Permit (SJ 99-03), VI] Federally Enforceable Through Title V Permit
59. **OTHER APPLICABLE REGULATIONS:** The owner and operator of the facility shall construct and operate the stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60, and 61 and all other applicable federal, state, and local air quality regulations. [PSD Permit (SJ 99-03), VIII] Federally Enforceable Through Title V Permit
60. Any requirements established by PSD permit for the gathering and reporting of information are not subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act because PSD permit is not an "information collection request" within the meaning of 44 U.S.C. §§ 3502(4), 3502 (11), 3507, 3512, and 3518. Furthermore, PSD permit and any information gathering and reporting requirements established by PSD permit are exempt from OMB review under the Paperwork Reduction Act because it is directed to fewer than ten persons, 44 U.S.C. § 3502(4) and § 3502(11); 5 CFR Part 1320.5(a). [PSD Permit (SJ 99-03), IX] Federally Enforceable Through Title V Permit
61. **Agency Notification:** All correspondence as required by the PSD permit shall be forwarded to EPA at the following address: Director, Air Division (Attn: Air-1), U. S. Environmental Protection Agency, Region 9, 75 Hawthorne Street San Francisco, CA 94105-3901. [PSD Permit (SJ 99-03), XI] Federally Enforceable Through Title V Permit
62. On January 31, 2012, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, 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

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3636-1-7

**EXPIRATION DATE:** 02/29/2016

**EQUIPMENT DESCRIPTION:**

168 MW NOMINALLY RATED GENERAL ELECTRIC 7FA NATURAL GAS FIRED GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS AND SELECTIVE CATALYTIC REDUCTION, WITH HRSG #1 AND 185 MW STEAM TURBINE #1 IN A TWO ON ONE COMBINED CYCLE WITH GAS TURBINE ENGINE S-3636-2

## PERMIT UNIT REQUIREMENTS

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1. Combustion turbine and electrical generator lube oil vents shall be equipped with mist eliminators to maintain visible emissions from lube oil vents no greater than 5% opacity, except for three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combustion turbine engine(GTE) shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
3. Heat recovery steam generator (HRSG) exhaust duct downstream of the SCR unit shall be equipped with continuously recording emissions monitors (CEM) for NO<sub>x</sub>, CO, and O<sub>2</sub>. All CEMs shall be dedicated to this unit and shall meet the requirements of 40 CFR Part 60 Appendices B & F (for CO), and 40 CFR Part 75 (for NO<sub>x</sub> and O<sub>2</sub>), and shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided the CEM(s) pass the relative accuracy requirements for startups and shutdown specified herein. If relative accuracy of CEM(s) cannot be certified during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained during source testing to determine compliance with emission limits in conditions 13, 17 and 18. [District Rule 2201 and PSD Permit (SJ 99-03) X.H.1] Federally Enforceable Through Title V Permit
4. HRSG exhaust duct shall be equipped with a continuously recording emission monitor upstream of the SCR unit for measuring the NO<sub>x</sub> 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 Rule 2201] Federally Enforceable Through Title V Permit
5. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.3] Federally Enforceable Through Title V Permit
7. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO<sub>x</sub> and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 8.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

S-3636-1-7 : May 23 2016 2:14PM - TORID

9. GTE shall be fired exclusively on natural gas, consisting primarily of methane and ethane, with a sulfur content no greater than 0.75 grains of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
10. Cold startup is defined as the period beginning with turbine initial firing until the unit meets the lb/hr and ppmv emission limits in condition 15. Cold startup means a startup when the combustion turbine has not been in operation during the preceding 72 hours. Duration of the cold startups shall not exceed 3 hours. [District Rules 2201 and 4703 and PSD Permit (SJ 99-03) X.G.5] Federally Enforceable Through Title V Permit
11. Only one of GTEs S-3636-1, '2 or '3 shall be in startup at any one time. [District Rule 2201 and PSD Permit (SJ 99-03) X.G.2] Federally Enforceable Through Title V Permit
12. Ammonia shall be injected when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F. Permittee shall monitor and record catalyst temperature during periods of startup. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During the cold startup GTE exhaust emissions shall not exceed any of the following: NOx (as NO2) - 130 lb, VOC - 273 lb or CO - 1235 lb, in any one hour. [District Rule 2201 and PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
14. Emission rates from GTE, except during startup and/or shutdown, shall not exceed any of the following: NOx (as NO2) - 17.03 lb/hr and 2.5 ppmvd @ 15% O2, VOC - 2.0 ppmvd @ 15% O2, CO - 24.92 lb/hr and 6 ppmvd @ 15% O2 or ammonia - 10 ppmvd @15% O2. NOx (as NO2) emission limit is a one-hour average. Ammonia emission limit is a twenty-four hour rolling average. All other emission limits are three-hour rolling averages. [District Rules 2201, 4703 and PSD Permit (SJ 99-03) X.D & .E] Federally Enforceable Through Title V Permit
15. Emission rates from the GTE shall not exceed either of the following: PM10 - 9.0 lb/hr and SOx (as SO2) - 3.495 lb/hr. Emission limits are three-hour rolling averages. [District Rules 2201, 4001, and PSD Permit (SJ 99-03) X.F] Federally Enforceable Through Title V Permit
16. On any day when a startup or shutdown occurs, emission rates from GTE shall not exceed any of the following: PM10 - 216 lb/day, SOx (as SO2) - 84 lb/day, NOx (as NO2) - 450 lb/day, VOC - 355 lb/day or CO - 2,113 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Combined annual emissions from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed any of the following: PM10 - 224,343 lb/year, SOx (as SO2) - 84,780 lb/year, NOx (as NO2) - 344,484 lb/year, VOC - 227,619 lb/year or CO - 1,220,166 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Combined annual emissions of all hazardous air pollutants (HAPS) from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed 25 tons/year. Combined annual emissions of any single HAP from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed 10 tons/year. [District Rule 4002] Federally Enforceable Through Title V Permit
19. Each one-hour period shall commence on the hour. Each one-hour period in a three-hour rolling average will commence on the hour. The three-hour average will be compiled from the three most recent one-hour periods. Each one-hour period in a twenty-four-hour average for ammonia slip will commence on the hour. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Daily emissions will be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each month in the twelve-consecutive-month rolling average emissions shall commence at the beginning of the first day of the month. The twelve-consecutive-month rolling average emissions to determine compliance with annual emissions limitations shall be compiled from the twelve most recent calendar months. [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.

21. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O<sub>2</sub> = ((a-(bxc/1,000,000)) x 1,000,000 / b) x 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 NO<sub>x</sub> concentration ppmv at 15% O<sub>2</sub> across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Alternatively, permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District, to monitor compliance. At least 60 days prior to using a NH<sub>3</sub> CEM, the permittee must submit a monitoring plan for District review and approval. [District Rule 4102]
22. Compliance with the short term emission limits (ppmv @ 15% O<sub>2</sub> and lb/hr) shall be demonstrated annually by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm at full load conditions as follows - NO<sub>x</sub>: ppmvd @ 15% O<sub>2</sub> and lb/hr, CO: ppmvd @ 15% O<sub>2</sub> and lb/hr, VOC: ppmvd @ 15% O<sub>2</sub> and lb/hr, PM<sub>10</sub>: lb/hr, and ammonia: ppmvd @ 15% O<sub>2</sub>. Sample collection to demonstrate compliance with ammonia emission limit shall be based on three consecutive test runs of thirty minutes each. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.1] Federally Enforceable Through Title V Permit
23. Compliance with the startup NO<sub>x</sub>, CO, and VOC mass emission limits shall be demonstrated for one of the GTEs (S-3636-1, '2, or '3) at least once every seven years by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm. CEM relative accuracy shall be determined during startup source testing in accordance with methodology approved by the District. If CEM data is not certifiable to determine compliance with NO<sub>x</sub> and CO startup emissions limits, then source testing to measure startup NO<sub>x</sub> and CO mass emissions rates shall be conducted at least once every 12 months. [District Rule 1081] Federally Enforceable Through Title V Permit
24. Based on the initial speciated HAPS and total VOC source test conducted for one of the GTEs (S-3636-1, '2 or '3), Pastoria shall correlate the total HAPS emissions rate and the single highest HAP emission rate to the VOC mass emission determined during the speciated HAPS source test. Annual compliance with the HAPS emissions limit (25 tpy all HAPS or 10 tpy any single HAP) shall be by the combined VOC emissions rates for the GTEs (S-3636-1, '2 and '3) determined during annual compliance source testing and the correlation between VOC emissions and HAP(S). [District Rule 4002] Federally Enforceable Through Title V Permit
25. Compliance with natural gas sulfur content limit shall be demonstrated periodically as required by 40 CFR 60 Subpart GG and 40 CFR 75. [District Rules 2540 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
26. 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. Official test results and field data collected by source tests required by conditions on this permit shall be submitted to the District within 60 days of testing. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.2] Federally Enforceable Through Title V Permit
27. Source test plans for seven-year source tests shall include a method for measuring the VOC/CO surrogate relationship that will be used to demonstrate compliance with VOC lb/hr, lb/day, and lb/twelve month rolling emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
28. The following test methods shall be used PM<sub>10</sub>: EPA method 5 (front half and back half), NO<sub>x</sub>: EPA Method 7E or 20, CO: EPA method 10 or 10B, O<sub>2</sub>: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081, 4001, 4703, and PSD Permit (SJ 99-03) X.C.2] Federally Enforceable Through Title V Permit
29. The permittee shall maintain hourly records of NO<sub>x</sub>, CO, and ammonia emission concentrations (ppmv @ 15% O<sub>2</sub>), and hourly, daily, and twelve month rolling average records of NO<sub>x</sub> 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. [District Rule 2201] Federally Enforceable Through Title V Permit
30. The permittee shall maintain records of SO<sub>x</sub> lb/hr, lb/day, and lb/twelve month rolling average emission. SO<sub>x</sub> emissions shall be based on fuel use records, natural gas sulfur content, and mass balance calculations. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] 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.



31. Permittee shall maintain the following records for the GTE: occurrence, duration, and type of any startup, shutdown, or malfunction; performance testing; emission measurements; total daily and rolling twelve month average hours of operation; hourly quantity of fuel used and gross three hour average operating load. [District Rules 2201 & 4703] Federally Enforceable Through Title V Permit
32. Permittee shall maintain the following records for the continuous emissions monitoring system (CEMS): performance testing, evaluations, calibrations, checks, maintenance, adjustments, and any period during which a CEMS was inoperative. [District Rules 2201 & 4703, and PSD Permit (SJ 99-03) X.I.1] Federally Enforceable Through Title V Permit
33. Permittee shall provide notification and record keeping as required under 40 CFR, Part 60, Subpart A, 60.7. [District Rule 4001] Federally Enforceable Through Title V Permit
34. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
35. Results of continuous emissions monitoring shall 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 ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
36. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
38. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rule 1080 and PSD Permit (SJ 99-03) X.I.3] Federally Enforceable Through Title V Permit
39. The combined annual emissions rate from all three CTGs and emergency engines S-3636-7-4 & -12-1, based on 12-month rolling average, must not exceed 344,485 lbs NO<sub>x</sub> and 1,140,000 lbs CO. [PSD Permit (SJ 99-03) X.D & .E] Federally Enforceable Through Title V Permit
40. The annual SO<sub>x</sub> emissions from each CTG, based on 12-month rolling average, must not exceed 28,170 lbs. [PSD Permit (SJ 99-03) X.F] Federally Enforceable Through Title V Permit
41. During the hot startup of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 107 lbs of NO<sub>x</sub> or 903 lbs of CO in any one hour. Hot startup means a startup when the combustion turbine has been in operation during the preceding 8 hours and duration of hot start-ups shall not exceed 1 hour. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
42. During the warm startup of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 119 lbs of NO<sub>x</sub> or 1021 lbs of CO in any one hour. Warm startup means a startup that is not a hot or cold startup and duration of warm startups shall not exceed 2.5 hours. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
43. During the Shutdown of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 58.5 lbs of NO<sub>x</sub> or 222.5 lbs of CO in any one hour. Shutdown shall be defined as the period beginning with the lowering of equipment from base load and lasting until fuel flow is completely off and combustion has ceased and duration of shutdowns shall not exceed one half hour. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

44. Any excess emission indicated by the CEM system must be considered a violation of the applicable emission limit in the PSD permit. [PSD Permit (SJ 99-03) X.I.4] Federally Enforceable Through Title V Permit
45. The quality assurance project plan used by the Permittee for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 CFR Part 60, Appendix F, must be available upon request to EPA. [PSD Permit (SJ 99-03) X.I.5] Federally Enforceable Through Title V Permit

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

Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

S-3636-1-7: May 23 2016 2:14PM - TORID

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3636-2-7

**EXPIRATION DATE:** 02/29/2016

**EQUIPMENT DESCRIPTION:**

168 MW NOMINALLY RATED GENERAL ELECTRIC 7FA NATURAL GAS FIRED GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, SELECTIVE CATALYTIC REDUCTION, HRSG #2, AND A SINGLE 185 MW STEAM TURBINE #1 SHARED WITH GAS TURBINE ENGINE S-3636-1

## PERMIT UNIT REQUIREMENTS

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1. Combustion turbine and electrical generator lube oil vents shall be equipped with mist eliminators to maintain visible emissions from lube oil vents no greater than 5% opacity, except for three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combustion turbine engine(GTE) shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
3. Heat recovery steam generator (HRSG) exhaust duct downstream of the SCR unit shall be equipped with continuously recording emissions monitors (CEM) for NOx, CO, and O2. All CEMs shall be dedicated to this unit and shall meet the requirements of 40 CFR Part 60 Appendices B & F (for CO), and 40 CFR Part 75 (for NOx and O2), and shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided the CEM(s) pass the relative accuracy requirements for startups and shutdown specified herein. If relative accuracy of CEM(s) cannot be certified during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained during source testing to determine compliance with emission limits in conditions 13, 17 and 18. [District Rule 2201 and PSD Permit (SJ 99-03) X.H.1] Federally Enforceable Through Title V Permit
4. HRSG exhaust duct shall be equipped with a continuously recording emission monitor upstream of the SCR unit for measuring the 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 Rule 2201] Federally Enforceable Through Title V Permit
5. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.3] Federally Enforceable Through Title V Permit
7. 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
8. 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

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

9. GTE shall be fired exclusively on natural gas, consisting primarily of methane and ethane, with a sulfur content no greater than 0.75 grains of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rule 2201 and PSD Permit (SJ 99-03) X.K.] Federally Enforceable Through Title V Permit
10. Cold startup is defined as the period beginning with turbine initial firing until the unit meets the lb/hr and ppmv emission limits in condition 15. Cold startup means a startup when the combustion turbine has not been in operation during the preceding 72 hours. Duration of the cold startups shall not exceed 3 hours. [District Rules 2201 and 4703 and PSD Permit (SJ 99-03) X.G.5] Federally Enforceable Through Title V Permit
11. Only one of GTEs S-3636-1, '2 or '3 shall be in startup at any one time. [District Rule 2201 and PSD Permit (SJ 99-03) X.G.2] Federally Enforceable Through Title V Permit
12. Ammonia shall be injected when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F. Permittee shall monitor and record catalyst temperature during periods of startup. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During the cold startup GTE exhaust emissions shall not exceed any of the following: NOx (as NO2) - 130 lb, VOC - 273 lb or CO - 1235 lb, in any one hour. [District Rule 2201 and PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
14. Emission rates from GTE, except during startup and/or shutdown, shall not exceed any of the following: NOx (as NO2) - 17.03 lb/hr and 2.5 ppmvd @ 15% O2, VOC - 2.0 ppmvd @ 15% O2, CO - 24.92 lb/hr and 6 ppmvd @ 15% O2 or ammonia - 10 ppmvd @ 15% O2. NOx (as NO2) emission limit is a one-hour average. Ammonia emission limit is a twenty-four hour rolling average. All other emission limits are three-hour rolling averages. [District Rules 2201, 4703 and PSD Permit (SJ 99-03) X.D & .E] Federally Enforceable Through Title V Permit
15. Emission rates from the GTE shall not exceed either of the following: PM10 - 9.0 lb/hr and SOx (as SO2) - 3.495 lb/hr. Emission limits are three-hour rolling averages. [District Rules 2201, 4001, and PSD Permit (SJ 99-03) X.F] Federally Enforceable Through Title V Permit
16. On any day when a startup or shutdown occurs, emission rates from GTE shall not exceed any of the following: PM10 - 216 lb/day, SOx (as SO2) - 84 lb/day, NOx (as NO2) - 450 lb/day, VOC - 355 lb/day or CO - 2,113 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Combined annual emissions from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed any of the following: PM10 - 224,343 lb/year, SOx (as SO2) - 84,780 lb/year, NOx (as NO2) - 344,484 lb/year, VOC - 227,619 lb/year or CO - 1,220,166 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Combined annual emissions of all hazardous air pollutants (HAPS) from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed 25 tons/year. Combined annual emissions of any single HAP from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed 10 tons/year. [District Rule 4002] Federally Enforceable Through Title V Permit
19. Each one-hour period shall commence on the hour. Each one-hour period in a three-hour rolling average will commence on the hour. The three-hour average will be compiled from the three most recent one-hour periods. Each one-hour period in a twenty-four-hour average for ammonia slip will commence on the hour. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Daily emissions will be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each month in the twelve-consecutive-month rolling average emissions shall commence at the beginning of the first day of the month. The twelve-consecutive-month rolling average emissions to determine compliance with annual emissions limitations shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O<sub>2</sub> = ((a-(bxc/1,000,000)) x 1,000,000 / b) x 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 NO<sub>x</sub> concentration ppmv at 15% O<sub>2</sub> across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Alternatively, permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District, to monitor compliance. At least 60 days prior to using a NH<sub>3</sub> CEM, the permittee must submit a monitoring plan for District review and approval. [District Rule 4102]
22. Compliance with the short term emission limits (ppmv @ 15% O<sub>2</sub> and lb/hr) shall be demonstrated annually by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm at full load conditions as follows - NO<sub>x</sub>: ppmvd @ 15% O<sub>2</sub> and lb/hr, CO: ppmvd @ 15% O<sub>2</sub> and lb/hr, VOC: ppmvd @ 15% O<sub>2</sub> and lb/hr, PM<sub>10</sub>: lb/hr, and ammonia: ppmvd @ 15% O<sub>2</sub>. Sample collection to demonstrate compliance with ammonia emission limit shall be based on three consecutive test runs of thirty minutes each. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.1] Federally Enforceable Through Title V Permit
23. Compliance with the startup NO<sub>x</sub>, CO, and VOC mass emission limits shall be demonstrated for one of the GTEs (S-3636-1, '2, or '3) at least once every seven years by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm. CEM relative accuracy shall be determined during startup source testing in accordance with methodology approved by the District. If CEM data is not certifiable to determine compliance with NO<sub>x</sub> and CO startup emissions limits, then source testing to measure startup NO<sub>x</sub> and CO mass emissions rates shall be conducted at least once every 12 months. [District Rule 1081] Federally Enforceable Through Title V Permit
24. Based on the initial speciated HAPS and total VOC source test conducted for one of the GTEs (S-3636-1, '2 or '3), Pastoria shall correlate the total HAPS emissions rate and the single highest HAP emission rate to the VOC mass emission determined during the speciated HAPs source test. Annual compliance with the HAPS emissions limit (25 tpy all HAPS or 10 tpy any single HAP) shall be by the combined VOC emissions rates for the GTEs (S-3636-1, '2 and '3) determined during annual compliance source testing and the correlation between VOC emissions and HAP(S). [District Rule 4002] Federally Enforceable Through Title V Permit
25. Compliance with natural gas sulfur content limit shall be demonstrated periodically as required by 40 CFR 60 Subpart GG and 40 CFR 75. [District Rules 2540 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
26. 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. Official test results and field data collected by source tests required by conditions on this permit shall be submitted to the District within 60 days of testing. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.2] Federally Enforceable Through Title V Permit
27. Source test plans for seven-year source tests shall include a method for measuring the VOC/CO surrogate relationship that will be used to demonstrate compliance with VOC lb/hr, lb/day, and lb/twelve month rolling emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
28. The following test methods shall be used PM<sub>10</sub>: EPA method 5 (front half and back half), NO<sub>x</sub>: EPA Method 7E or 20, CO: EPA method 10 or 10B, O<sub>2</sub>: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081, 4001, 4703, and PSD Permit (SJ 99-03) X.C.2] Federally Enforceable Through Title V Permit
29. The permittee shall maintain hourly records of NO<sub>x</sub>, CO, and ammonia emission concentrations (ppmv @ 15% O<sub>2</sub>), and hourly, daily, and twelve month rolling average records of NO<sub>x</sub> 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. [District Rule 2201] Federally Enforceable Through Title V Permit
30. The permittee shall maintain records of SO<sub>x</sub> lb/hr, lb/day, and lb/twelve month rolling average emission. SO<sub>x</sub> emissions shall be based on fuel use records, natural gas sulfur content, and mass balance calculations. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] 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.

31. Permittee shall maintain the following records for the GTE: occurrence, duration, and type of any startup, shutdown, or malfunction; performance testing; emission measurements; total daily and rolling twelve month average hours of operation; hourly quantity of fuel used and gross three hour average operating load. [District Rules 2201 & 4703] Federally Enforceable Through Title V Permit
32. Permittee shall maintain the following records for the continuous emissions monitoring system (CEMS): performance testing, evaluations, calibrations, checks, maintenance, adjustments, and any period during which a CEMS was inoperative. [District Rules 2201 & 4703, and PSD Permit (SJ 99-03) X.I.1] Federally Enforceable Through Title V Permit
33. Permittee shall provide notification and record keeping as required under 40 CFR, Part 60, Subpart A, 60.7. [District Rule 4001] Federally Enforceable Through Title V Permit
34. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
35. Results of continuous emissions monitoring shall 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 ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
36. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
38. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rule 1080 and PSD Permit (SJ 99-03) X.I.3] Federally Enforceable Through Title V Permit
39. The combined annual emissions rate from all three CTGs and emergency engines S-3636-7-4 & -12-41 based on 12-month rolling average, must not exceed 344,485 lbs NOx and 1,140,000 lbs CO. [PSD Permit (SJ 99-03) X.D & .E] Federally Enforceable Through Title V Permit
40. The annual SOx emissions from each CTG, based on 12-month rolling average, must not exceed 28,170 lbs. [PSD Permit (SJ 99-03) X.F] Federally Enforceable Through Title V Permit
41. During the hot startup of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 107 lbs of NOx or 903 lbs of CO in any one hour. Hot startup means a startup when the combustion turbine has been in operation during the preceding 8 hours and duration of hot start-ups shall not exceed 1 hour. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
42. During the warm startup of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 119 lbs of NOx or 1021 lbs of CO in any one hour. Warm startup means a startup that is not a hot or cold startup and duration of warm startups shall not exceed 2.5 hours. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
43. During the Shutdown of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 58.5 lbs of NOx or 222.5 lbs of CO in any one hour. Shutdown shall be defined as the period beginning with the lowering of equipment from base load and lasting until fuel flow is completely off and combustion has ceased and duration of shutdowns shall not exceed one half hour. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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44. Any excess emission indicated by the CEM system must be considered a violation of the applicable emission limit in the PSD permit. [PSD Permit (SJ 99-03) X.I.4] Federally Enforceable Through Title V Permit
45. The quality assurance project plan used by the Permittee for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 CFR Part 60, Appendix F, must be available upon request to EPA. [PSD Permit (SJ 99-03) X.I.5] Federally Enforceable Through Title V Permit

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S-3636-2-7 : May 23 2016 2:14PM - TORID

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3636-3-7

**EXPIRATION DATE:** 02/29/2016

**EQUIPMENT DESCRIPTION:**

168 MW NOMINALLY RATED GENERAL ELECTRIC 7FA NATURAL GAS FIRED GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, SELECTIVE CATALYTIC REDUCTION, HRSG #1 AND 90 MW STEAM TURBINE #2

## PERMIT UNIT REQUIREMENTS

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1. Combustion turbine and electrical generator lube oil vents shall be equipped with mist eliminators to maintain visible emissions from lube oil vents no greater than 5% opacity, except for three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Combustion turbine engine(GTE) shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
3. Heat recovery steam generator (HRSG) exhaust duct downstream of the SCR unit shall be equipped with continuously recording emissions monitors (CEM) for NOx, CO, and O2. All CEMs shall be dedicated to this unit and shall meet the requirements of 40 CFR Part 60 Appendices B & F (for CO), and 40 CFR Part 75 (for NOx and O2), and shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided the CEM(s) pass the relative accuracy requirements for startups and shutdown specified herein. If relative accuracy of CEM(s) cannot be certified during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained during source testing to determine compliance with emission limits in conditions 13, 17 and 18. [District Rule 2201 and PSD Permit (SJ 99-03) X.H.1] Federally Enforceable Through Title V Permit
4. Results of continuous emissions monitoring shall 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 ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
5. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
6. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
7. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rule 1080 and PSD Permit (SJ 99-03) X.I.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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8. The combined annual emissions rate from all three CTGs and emergency engines S-3636-7-4 & -12-1, based on 12-month rolling average, must not exceed 344,485 lbs NOx and 1,140,000 lbs CO. [PSD Permit (SJ 99-03) X.D & .E] Federally Enforceable Through Title V Permit
9. The annual SOx emissions from each CTG, based on 12-month rolling average, must not exceed 28,170 lbs. [PSD Permit (SJ 99-03) X.F] Federally Enforceable Through Title V Permit
10. During the hot startup of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 107 lbs of NOx or 903 lbs of CO in any one hour. Hot startup means a startup when the combustion turbine has been in operation during the preceding 8 hours and duration of hot start-ups shall not exceed 1 hour. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
11. HRSG exhaust duct shall be equipped with a continuously recording emission monitor upstream of the SCR unit for measuring the 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 Rule 2201] Federally Enforceable Through Title V Permit
12. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.3] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. GTE shall be fired exclusively on natural gas, consisting primarily of methane and ethane, with a sulfur content no greater than 0.75 grains of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
17. Cold startup is defined as the period beginning with turbine initial firing until the unit meets the lb/hr and ppmv emission limits in condition 15. Cold startup means a startup when the combustion turbine has not been in operation during the preceding 72 hours. Duration of the cold startups shall not exceed 3 hours. [District Rules 2201 and 4703 and PSD Permit (SJ 99-03) X.G.5] Federally Enforceable Through Title V Permit
18. Only one of GTEs S-3636-1, '2 or '3 shall be in startup at any one time. [District Rule 2201 and PSD Permit (SJ 99-03) X.G.2] Federally Enforceable Through Title V Permit
19. Ammonia shall be injected when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F. Permittee shall monitor and record catalyst temperature during periods of startup. [District Rule 2201] Federally Enforceable Through Title V Permit
20. During the cold startup GTE exhaust emissions shall not exceed any of the following: NOx (as NO2) - 130 lb, VOC - 273 lb or CO - 1235 lb, in any one hour. [District Rule 2201 and PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
21. Emission rates from GTE, except during startup and/or shutdown, shall not exceed any of the following: NOx (as NO2) - 17.03 lb/hr and 2.5 ppmvd @ 15% O2, VOC - 2.0 ppmvd @ 15% O2, CO - 24.92 lb/hr and 6 ppmvd @ 15% O2 or ammonia - 10 ppmvd @ 15% O2. NOx (as NO2) emission limit is a one-hour average. Ammonia emission limit is a twenty-four hour rolling average. All other emission limits are three-hour rolling averages. [District Rules 2201, 4703 and PSD Permit (SJ 99-03) X.D & .E] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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22. Emission rates from the GTE shall not exceed either of the following: PM10 - 9.0 lb/hr and SOx (as SO2) - 3.495 lb/hr. Emission limits are three-hour rolling averages. [District Rules 2201, 4001, and PSD Permit (SJ 99-03) X.F] Federally Enforceable Through Title V Permit
23. On any day when a startup or shutdown occurs, emission rates from GTE shall not exceed any of the following: PM10 - 216 lb/day, SOx (as SO2) - 84 lb/day, NOx (as NO2) - 450 lb/day, VOC - 355 lb/day or CO - 2,113 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Combined annual emissions from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed any of the following: PM10 - 224,343 lb/year, SOx (as SO2) - 84,780 lb/year, NOx (as NO2) - 344,484 lb/year, VOC - 227,619 lb/year or CO - 1,220,166 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Combined annual emissions of all hazardous air pollutants (HAPS) from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed 25 tons/year. Combined annual emissions of any single HAP from GTEs S-3636-1, '2 and '3, calculated on a twelve consecutive month rolling basis, shall not exceed 10 tons/year. [District Rule 4002] Federally Enforceable Through Title V Permit
26. Each one-hour period shall commence on the hour. Each one-hour period in a three-hour rolling average will commence on the hour. The three-hour average will be compiled from the three most recent one-hour periods. Each one-hour period in a twenty-four-hour average for ammonia slip will commence on the hour. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Daily emissions will be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each month in the twelve-consecutive-month rolling average emissions shall commence at the beginning of the first day of the month. The twelve-consecutive-month rolling average emissions to determine compliance with annual emissions limitations shall be compiled from the twelve most recent calendar months. [District Rule 2201] 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)) x 1,000,000 / b) x 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. Alternatively, permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District, to monitor compliance. At least 60 days prior to using a NH3 CEM, the permittee must submit a monitoring plan for District review and approval. [District Rule 4102]
29. Compliance with the short term emission limits (ppmv @ 15% O2 and lb/hr) shall be demonstrated annually by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm at full load conditions as follows - NOx: ppmvd @ 15% O2 and lb/hr, CO: ppmvd @ 15% O2 and lb/hr, VOC: ppmvd @ 15% O2 and lb/hr, PM10: lb/hr, and ammonia: ppmvd @ 15% O2. Sample collection to demonstrate compliance with ammonia emission limit shall be based on three consecutive test runs of thirty minutes each. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.1] Federally Enforceable Through Title V Permit
30. Compliance with the startup NOx, CO, and VOC mass emission limits shall be demonstrated for one of the GTEs (S-3636-1, '2, or '3) at least once every seven years by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm. CEM relative accuracy shall be determined during startup source testing in accordance with methodology approved by the District. If CEM data is not certifiable to determine compliance with NOx and CO startup emissions limits, then source testing to measure startup NOx and CO mass emissions rates shall be conducted at least once every 12 months. [District Rule 1081] Federally Enforceable Through Title V Permit
31. Based on the initial speciated HAPS and total VOC source test conducted for one of the GTEs (S-3636-1, '2 or '3), Pastoria shall correlate the total HAPS emissions rate and the single highest HAP emission rate to the VOC mass emission determined during the speciated HAPs source test. Annual compliance with the HAPS emissions limit (25 tpy all HAPS or 10 tpy any single HAP) shall be by the combined VOC emissions rates for the GTEs (S-3636-1, '2 and '3) determined during annual compliance source testing and the correlation between VOC emissions and HAP(S). [District Rule 4002] 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. Compliance with natural gas sulfur content limit shall be demonstrated periodically as required by 40 CFR 60 Subpart GG and 40 CFR 75. [District Rules 2540 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
33. 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. Official test results and field data collected by source tests required by conditions on this permit shall be submitted to the District within 60 days of testing. [District Rule 1081 and PSD Permit (SJ 99-03) X.C.2] Federally Enforceable Through Title V Permit
34. Source test plans for seven-year source tests shall include a method for measuring the VOC/CO surrogate relationship that will be used to demonstrate compliance with VOC lb/hr, lb/day, and lb/twelve month rolling emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
35. 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, O2: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081, 4001, 4703, and PSD Permit (SJ 99-03) X.C.2] Federally Enforceable Through Title V Permit
36. The permittee shall maintain hourly records of NOx, CO, and ammonia emission concentrations (ppmv @ 15% O2), and hourly, daily, and twelve month rolling 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. [District Rule 2201] Federally Enforceable Through Title V Permit
37. The permittee shall maintain records of SOx lb/hr, lb/day, and lb/twelve month rolling average emission. SOx emissions shall be based on fuel use records, natural gas sulfur content, and mass balance calculations. [District Rule 2201 and PSD Permit (SJ 99-03) X.K] Federally Enforceable Through Title V Permit
38. Permittee shall maintain the following records for the GTE: occurrence, duration, and type of any startup, shutdown, or malfunction; performance testing; emission measurements; total daily and rolling twelve month average hours of operation; hourly quantity of fuel used and gross three hour average operating load. [District Rules 2201 & 4703] Federally Enforceable Through Title V Permit
39. Permittee shall maintain the following records for the continuous emissions monitoring system (CEMS): performance testing, evaluations, calibrations, checks, maintenance, adjustments, and any period during which a CEMS was inoperative. [District Rules 2201 & 4703, and PSD Permit (SJ 99-03) X.I.1] Federally Enforceable Through Title V Permit
40. Permittee shall provide notification and record keeping as required under 40 CFR, Part 60, Subpart A, 60.7. [District Rule 4001] Federally Enforceable Through Title V Permit
41. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
42. During the warm startup of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 119 lbs of NOx or 1021 lbs of CO in any one hour. Warm startup means a startup that is not a hot or cold startup and duration of warm startups shall not exceed 2.5 hours. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
43. During the Shutdown of any CTG, the combined emissions from any one CTG and HRSG exhausts must not exceed 58.5 lbs of NOx or 222.5 lbs of CO in any one hour. Shutdown shall be defined as the period beginning with the lowering of equipment from base load and lasting until fuel flow is completely off and combustion has ceased and duration of shutdowns shall not exceed one half hour. [PSD Permit (SJ 99-03) X.G.1] Federally Enforceable Through Title V Permit
44. Any excess emission indicated by the CEM system must be considered a violation of the applicable emission limit in the PSD permit. [PSD Permit (SJ 99-03) X.I.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: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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45. The quality assurance project plan used by the Permittee for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 CFR Part 60, Appendix F, must be available upon request to EPA. [PSD Permit (SJ 99-03) X.I.5] Federally Enforceable Through Title V Permit

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

Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT: S-3636-4-4**

**EXPIRATION DATE: 02/29/2016**

**EQUIPMENT DESCRIPTION:**

**FORCED DRAFT COOLING TOWER WITH 8 CELLS AND HIGH EFFICIENCY DRIFT ELIMINATOR**

## **PERMIT UNIT REQUIREMENTS**

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1. Permittee shall maintain and make available to the District upon request vendor supplied justification for the correction factor used to correlate blowdown TDS to drift TDS and correct for the amount of drift that stays suspended in the atmosphere. Correction factor is used in the equation below to calculate cooling tower PM10 emissions rate. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012 and 40 CFR 63.402] Federally Enforceable Through Title V Permit
3. Drift eliminator drift rate shall not exceed 0.0005%. [District Rule 2201] Federally Enforceable Through Title V Permit
4. PM10 emission rate shall not exceed 22.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Compliance with the PM10 daily emission limit shall be demonstrated as follows:  $PM10 \text{ lb/day} = \text{circulating water recirculation rate} \times \text{total dissolved solids concentration in the blowdown water} \times \text{design drift rate} \times \text{correction factor}$ . [District Rule 2201] Federally Enforceable Through Title V Permit
6. Compliance with PM10 emission limit shall be determined by blowdown water sample analysis by independent laboratory at least weekly. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3636-5-4

**EXPIRATION DATE:** 02/29/2016

**EQUIPMENT DESCRIPTION:**

4 CELL FORCED DRAFT COOLING TOWER WITH HIGH EFFICIENCY CELLULAR DRIFT ELIMINATOR

## **PERMIT UNIT REQUIREMENTS**

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1. Permittee shall maintain and make available to the District upon request vendor supplied justification for the correction factor used to correlate blowdown TDS to drift TDS and correct for the amount of drift that stays suspended in the atmosphere. Correction factor is used in the equation below to calculate cooling tower PM10 emissions rate. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012 and 40 CFR 63.402] Federally Enforceable Through Title V Permit
3. Drift eliminator drift rate shall not exceed 0.0005%. [District Rule 2201] Federally Enforceable Through Title V Permit
4. PM10 emission rate shall not exceed 11.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Compliance with the PM10 daily emission limit shall be demonstrated as follows:  $PM10 \text{ lb/day} = \text{circulating water recirculation rate} * \text{total dissolved solids concentration in the blowdown water} * \text{design drift rate} * \text{correction factor}$ . [District Rule 2201] Federally Enforceable Through Title V Permit
6. Compliance with PM10 emission limit shall be determined by blowdown water sample analysis by independent laboratory at least weekly. [District Rule 1081] Federally Enforceable Through Title V Permit

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

Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3636-7-4

**EXPIRATION DATE:** 02/29/2016

**EQUIPMENT DESCRIPTION:**

814 HP CATERPILLAR MODEL G3512 SC TA NATURAL GAS FIRED IC ENGINE DRIVING AN EMERGENCY ELECTRICAL GENERATOR WITH THREE-WAY EXHAUST CATALYST

## PERMIT UNIT REQUIREMENTS

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The sulfur content of the natural gas fuel shall not exceed 0.75 grain/100 scf. [District Rule 2201 and PSD Permit (SJ 99-03) X.K.] Federally Enforceable Through Title V Permit
3. Emissions from this IC engine shall not exceed any of the following limits: 1.84 lb NOx/hr, 3.62 lb CO/hr, 0.11 lb PM10/hr or 0.23 lb VOC/hr. [District Rules 2201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This engine shall be equipped with a nonresettable elapsed operating time meter. [District Rules 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system manufacturer. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
7. This engine shall be operated only for maintenance, testing, and 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, as determined by an operational nonresettable elapsed operating time meter. [District Rule 2201, 4702, PSD Permit (SJ 99-03) X.L.2, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
8. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
9. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. The engines shall not be used to increase the quantity of electricity generated for sale. [District Rule 4702 and PSD Permit (SJ 99-03) X.L.2] Federally Enforceable Through Title V Permit
10. During periods of maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (e.g. oil pressure, exhaust gas temperature, etc.). [District Rule 4702] Federally Enforceable Through Title V Permit
11. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the number of hours of operation, the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.), the type of fuel used, and records of operational characteristics monitoring. Such records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 4702 and and 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.

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] Federally Enforceable Through Title V Permit
13. This engine shall be equipped with a three-way catalyst. [PSD Permit (SJ 99-03) X.L.5] Federally Enforceable Through Title V Permit
14. The facility shall not operate the engine during start-up or shut-down of a turbine, except during emergency situations. [PSD Permit (SJ 99-03) X.L.3] Federally Enforceable Through Title V Permit
15. Effective October 19, 2013, The permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first; inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR Part 63.6603(a)] 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-3636-12-1

**EXPIRATION DATE:** 02/29/2016

**EQUIPMENT DESCRIPTION:**

360 HP JOHN DEERE COMPANY MODEL JW6H-UF-60 DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIRE WATER PUMP

## PERMIT UNIT REQUIREMENTS

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1. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. 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
4. Emissions from this engine shall not exceed any of the following limits: 5.6 g-NOx/hp-hr, 0.29 g-CO/hp-hr or 0.11 g-VOC/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The PM10 emissions rate shall not exceed 0.07 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rule 2201 and District Rule 4102] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
7. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 17 CCR 93115, PSD Permit (SJ 99-03) X.L.2, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
9. An emergency situation is an unscheduled event caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
10. 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, emergency fire fighting, 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, 17 CCR 93115, and 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: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

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11. 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
12. The diesel fire pump engine shall be equipped with a turbocharger and intercooler/aftercooler. [PSD Permit (SJ 99-03) X.L.4] Federally Enforceable Through Title V Permit
13. The facility shall not operate the engine during start-up or shut-down of a turbine, except during emergency situations. [PSD Permit (SJ 99-03) X.L.3] Federally Enforceable Through Title V Permit
14. Effective May 3, 2013, The permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first; inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR Part 63.6603(a)] 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-3636-13-1**

**EXPIRATION DATE: 02/29/2016**

**EQUIPMENT DESCRIPTION:**

CONFINED ABRASIVE BLASTING OPERATION WITH A 50 LB ECONOLINE ABRASIVE PRODUCTS RA 60 X 48 CB  
BLASTING UNIT SERVED BY A ECONOLINE ABRASIVE PRODUCTS RA 400-60 DUST COLLECTOR

## **PERMIT UNIT REQUIREMENTS**

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1. The blasting operations shall be carried out in a manner to prevent any nuisances. [District Rule 4102]
2. All abrasive blasting shall be conducted in accordance with California Code of Regulations Title 17, Subchapter 6, Sections 92000 through 92540. [92000 through 92540 CCR]
3. A used certified abrasive shall not be considered certified for reuse unless the abrasive conforms to its original cut-point fineness. [92530 CCR]
4. Abrasive blasting operations conducted within a permanent building shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann 1 or equivalent to 20% opacity. [92200 CCR]

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

Facility Name: PASTORIA ENERGY FACILITY, LLC

Location: TEJON RANCH 30 MILES S OF BAKERSFIELD, AND 6.5 MILES E OF GRAPEVINE, RANCHO EL TEJON, CA

S-3636-13-1: May 23 2010 2:14PM - TORID

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# ATTACHMENT C

Detailed Facility List

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**Detailed Facility Report**  
For Facility=3636 and excluding Deleted Permits  
Sorted by Facility Name and Permit Number

PASTORIA ENERGY FACILITY, LLC TEJON RANCH 30 MILES S OF BAKERSFIELD AND 6.5 MILES E OF GRAPEVINE RANCHO EL TEJON, CA	FAC #	S 3636	TYPE:	Title V	EXPIRE ON:	02/29/2016
	STATUS:	A	TOXIC ID:		AREA:	97
	TELEPHONE:				INSP. DATE:	04/17

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-3636-1-7	250,000 kw	3020-08B H	1	13,842.00	13,842.00	A	168 MW NOMINALLY RATED GENERAL ELECTRIC 7FA NATURAL GAS FIRED GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS AND SELECTIVE CATALYTIC REDUCTION, WITH HRSG #1 AND 185 MW STEAM TURBINE #1 IN A TWO ON ONE COMBINED CYCLE WITH GAS TURBINE ENGINE S-3636-2
S-3636-2-7	250,000 kw	3020-08B H	1	13,842.00	13,842.00	A	168 MW NOMINALLY RATED GENERAL ELECTRIC 7FA NATURAL GAS FIRED GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, SELECTIVE CATALYTIC REDUCTION, HRSG #2, AND A SINGLE 185 MW STEAM TURBINE #1 SHARED WITH GAS TURBINE ENGINE S-3636-1
S-3636-3-7	250,000 kw	3020-08B H	1	13,842.00	13,842.00	A	168 MW NOMINALLY RATED GENERAL ELECTRIC 7FA NATURAL GAS FIRED GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, SELECTIVE CATALYTIC REDUCTION, HRSG #1 AND 90 MW STEAM TURBINE #2
S-3636-4-4	Annual permit fees not applicable	999-99	1	0.00	0.00	A	FORCED DRAFT COOLING TOWER WITH 8 CELLS AND HIGH EFFICIENCY DRIFT ELIMINATOR
S-3636-5-4	annul permit fees not applicable	999-99	1	0.00	0.00	A	4 CELL FORCED DRAFT COOLING TOWER WITH HIGH EFFICIENCY CELLULAR DRIFT ELIMINATOR
S-3636-7-4	annual permit fees not applicable	999-99	1	0.00	0.00	A	814 HP CATERPILLAR MODEL G3512 SC TA NATURAL GAS FIRED IC ENGINE DRIVING AN EMERGENCY ELECTRICAL GENERATOR WITH THREE-WAY EXHAUST CATALYST
S-3636-12-1	360 bhp IC engine	3020-10 D	1	502.00	502.00	A	360 HP JOHN DEERE COMPANY MODEL JW6H-UF-60 DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIRE WATER PUMP
S-3636-13-1	0.5 HP	3020-01 A	1	92.00	92.00	A	CONFINED ABRASIVE BLASTING OPERATION WITH A 50 LB ECONOLINE ABRASIVE PRODUCTS RA 60 X 48 CB BLASTING UNIT SERVED BY A ECONOLINE ABRASIVE PRODUCTS RA 400-60 DUST COLLECTOR

Number of Facilities Reported: 1

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# ATTACHMENT D

Comment Received During Preliminary  
Decision and District Response

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On 7/29/16 the California Air Resources Board (CARB) commented that gas turbines S-3636-1, '2 and '3 are equipped with continuous emission monitoring systems (CEMS) and are therefore not subject to CAM requirements. They also requested that this be mentioned in the renewal evaluation. The underlined wording in section VIII.H, above, was added pursuant to CARB's request.