

November 24, 2021

Mr. Jay A. Blackman  
Sycamore Cogeneration  
P.O. Box 81438  
Bakersfield, CA 93380

**Re: Notice of Preliminary Decision – Title V Permit Renewal**  
**Facility Number: S-511**  
**Project Number: S-1202316**

Dear Mr. Blackman:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Sycamore Cogeneration at SW China Grade Loop, Bakersfield, California.

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

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

Sincerely,



Brian Clements  
Director of Permit Services

Enclosures

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

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

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**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
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**SAN JOAQUIN VALLEY  
AIR POLLUTION CONTROL DISTRICT**

**Proposed Title V Permit Renewal Evaluation  
Sycamore Cogeneration Co  
S-511**

**TABLE OF CONTENTS**

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I.	PROPOSAL.....	2
II.	FACILITY LOCATION .....	2
III.	EQUIPMENT LISTING .....	3
IV.	GENERAL PERMIT TEMPLATE USAGE .....	3
V.	SCOPE OF EPA AND PUBLIC REVIEW .....	3
VI.	FEDERALLY ENFORCEABLE REQUIREMENTS .....	3
VII.	REQUIREMENTS NOT FEDERALLY ENFORCEABLE.....	6
VIII.	PERMIT REQUIREMENTS .....	6
IX.	PERMIT SHIELD.....	10
X.	CALIFORNIA ENVIRONMENTAL QUALITY ACT .....	10
XI.	PERMIT CONDITIONS .....	10
ATTACHMENTS .....		11
A.	DRAFT RENEWED TITLE V OPERATING PERMIT	
B.	PREVIOUS TITLE V OPERATING PERMIT	
C.	DETAILED SUMMARY LIST OF FACILITY PERMITS	

# TITLE V PERMIT RENEWAL EVALUATION

## Cogeneration

**Engineer:** Mohamed Muthana

**Date:** November 18, 2021

*Steven Davidson*

11/23/21

**Facility Number:** S-511  
**Facility Name:** Sycamore Cogeneration Co  
**Mailing Address:** P.O. Box 80598  
Bakersfield, CA 93380-0598

**Contact Name:** Cory Eagar  
**Phone:** (661) 615-4681

**Responsible Official:** Jay A. Blackmon  
**Title:** Asset Manager

**Project # :** S-1202316  
**Deemed Complete:** July 23, 2020

### I. PROPOSAL

Sycamore Cogeneration Co. was last issued a Title V permit renewal on June 17, 2016. 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.

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

Sycamore Cogeneration Co. is located at 1546 China Grade Loop in Bakersfield, CA.

### III. EQUIPMENT LISTING

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

### IV. GENERAL PERMIT TEMPLATE USAGE

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

### 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 2201, New and Modified Stationary Source Review Rule (amended February 18, 2016 ⇒ amended August 15, 2019)
- District Rule 2520, Federally Mandated Operating Permits (amended June 21, 2001 ⇒ amended August 15, 2019)
- District Rule 4601, Architectural Coatings (amended December 17, 2009 ⇒ amended April 16, 2020)<sup>1</sup>
- 40 CFR 60 Subpart A, General Provisions (adopted March 8, 1974 ⇒ amended June 23, 2017)
- 40 CFR 60 Subpart GG, Standards of Performance for Stationary Gas Turbines (amended February 27, 2014 ⇒ amended March 9, 2020)
- 40 CFR Part 63, Subpart YYYY, National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (amended April 20, 2008 ⇒ amended March 9, 2020)

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<sup>1</sup> District Rule 4601 was amended on April 16, 2020, however the amended rule is not SIP-Approved by EPA; therefore conditions 23-25 for permit unit C-847-0-4 are still valid.

- 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (amended February 27, 2014 ⇒ December 4, 2020)
- 40 CFR Part 64, Compliance Assurance Monitoring (CAM) (October 22, 1997)
- 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners (amended June 18, 2008 ⇒ amended July 25, 2013)<sup>2</sup>
- 40 CFR Part 82, Subpart F, Recycling and Emission Reduction (amended June 18, 2008 ⇒ amended November 18, 2016 and December 27, 2017)<sup>2</sup>

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

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

#### **C. Rules Added**

None

#### **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 1100, Equipment Breakdown (amended December 17, 1992)
- District Rule 2010, Permits Required (amended December 17, 1992)
- District Rule 2020, Exemptions (amended December 18, 2014)
- District Rule 2031, Transfer of Permits (amended December 17, 1992)
- District Rule 2040, Applications (amended December 17, 1992)
- District Rule 2070, Standards for Granting Applications (amended

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<sup>2</sup> These subparts were amended since last renewal TV permit was issued. However, the amendments to these subparts do not have any effect on existing permit requirements as addressed by conditions 27 and 28 of permit unit C-847-0-5 on the draft renewed permit.

December 17, 1992)

- District Rule 2080, Conditional Approval (amended December 17, 1992)
- District Rule 2410, Prevention of Significant Deterioration (adopted June 16, 2011)
- District Rule 4101, Visible Emissions (amended February 17, 2005)
- District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)
- District Rule 4702, Internal Combustion Engines (amended August 19 2021)
- District Rule 4703, Stationary Gas Turbines (amended September 20, 2007)
- District Rule 4801, Sulfur Compounds (amended December 17, 1992)
- District Rule 8011, Fugitive Dust General Requirements (amended August 19, 2004)
- District Rule 8021, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Construction, Demolition, Excavation, and Extraction Activities (amended August 19, 2004)
- District Rule 8031, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Handling and Storage of Bulk Materials (Amended August 19, 2004)
- District Rule 8041, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Carryout and Trackout (amended August 19, 2004)
- District Rule 8051, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Open Area (amended August 19, 2004)
- District Rule 8061, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Paved and Unpaved Roads (amended August 19, 2004)

- District Rule 8071, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Unpaved Vehicle/Equipment Areas (amended September 16, 2004)
- Fresno County Rule 110, Equipment Breakdown
- 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos (amended July 20, 2004)
- 17 CCR 92000, California Code of Regulations Title 17 Subpart 6 Abrasive Blasting (amended August 30, 1984)

## 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/Updated

None

### B. Rules Not Updated

- District Rule 1100, Equipment Breakdown (amended December 17, 1992)
- District Rule 1160 Land Use (amended December 17, 1992)
- District Rule 4102, Nuisance (amended December 17, 1992)

## 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.

**C. District Rule 2201 - New and Modified Stationary Source Review Rule (NSR)**

District Rule 2201 has been amended since this facility's initial Title V permit was issued. However, the requirements of this rule are only triggered at the time the source undergoes a modification. All applicable requirements from any NSR permit actions have already been incorporated into the current Title V permit.

**D. District Rule 2520 - Federally Mandated Operating Permits**

District Rule 2520 has been amended since this facility's last Title V permit renewal. However, the amendment to this rule applies to the District's noticing policy and does not apply to the facilities existing permits.

**Greenhouse Gas Discussion**

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

**E. 40 CFR 60 Subpart A, General Provisions**

This subpart applies to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

The following amendments have been made to this subpart since the last Title V permit renewal:

- Section 60.8, Performance Tests, was amended on August 30, 2016. The revisions included updates to testing provisions, and newly approved alternatives to existing testing regulations. These revisions provide flexibility in the use of approved alternative procedures. The revisions do not impose any new substantive requirements on source owners or operators, therefore none of the changes impact existing conditions or require additional conditions.
- Section 60.17, Incorporations by Reference, was amended several times since the last Title V permit renewal. The various amendments only revised specific incorporated references and do not impact existing conditions.



**F. 40 CFR 60 Subpart GG, Standards of Performance for Stationary Gas Turbines**

The provisions of 40 CFR Part 60, Subpart GG are applicable to all stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired, which commences construction, modification, or reconstruction after October 3, 1977, except as provided in paragraphs (e) and (j) of Section 60.332. 40 CFR Part 60, Subpart GG establishes emission standards for nitrogen oxides and sulfur dioxide from stationary gas turbines.

The only amendments to 40 CFR Part 60, Subpart GG since this facility's last Title V Renewal were to Section 60.335 (Test Methods and Procedures). On February 27, 2014, the definitions of terms for the equation in 40 CFR Part 60, Subpart GG, Section 60.335(b)(1) were revised to allow the reference combustor inlet absolute pressure to be measured in millimeters of mercury (mm Hg). The site barometric pressure is allowed as an alternative to the observed combustor inlet absolute pressure for calculating the mean NO<sub>x</sub> emission concentration (see: <https://www.gpo.gov/fdsys/pkg/FR-2014-02-27/html/2014-02704.htm>).

The amendments to this subpart to allow the reference combustor inlet absolute pressure to be measured in millimeters of mercury (mm Hg) do not have any effect on the current permit requirements and therefore will not be addressed further in this evaluation.

**G. 40 CFR Part 63, Subpart YYYY - National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines**

Subpart YYYY establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emissions from stationary combustion turbines located at major sources of HAP emissions.

Pursuant to information in the facility files, this source is not a major source of HAP. Therefore the requirements are not applicable to the turbines operating at this facility and the amendments do not have any effect on the current permit requirements. No further discussion is required.

**H. 40 CFR Part 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

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

demonstrate initial and continuous compliance with the emission limitations and operating limitations.

The amendments to this subpart include the streamlining of the existing fuel quality regulations in Section § 63.6604 and revisions to paragraphs (b) and (d) in Section § 63.6645. The amendments did not change the stringency of existing fuel quality standards and do not have any effect on the current permit requirements. Therefore, this subpart will not be addressed further in this evaluation.

#### I. **40 CFR Part 64 - Compliance Assurance Monitoring (CAM)**

- 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.

<b>Pollutant</b>	<b>Major Source Threshold (lb/year)</b>
NO <sub>x</sub>	20,000
SO <sub>x</sub>	140,000
PM <sub>10</sub>	140,000
CO	200,000
VOC	20,000

#### S-511-1-20, -2-21, -3-21, and -4-20

These units contain emission limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. These units have no add-on controls for SO<sub>x</sub>, PM<sub>10</sub> or VOC emissions. Therefore, these units are not subject to CAM for SO<sub>x</sub>, PM<sub>10</sub> or VOC emissions. Additionally, these units are not subject to CAM for NO<sub>x</sub> and CO emissions since they are equipped with Continuous Emissions Monitors (CEMs) for these pollutants.

#### S-511-5-5 and S-511-6-4

These units do not contain any emission limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. Therefore, these units are not subject to CAM for any pollutant.

#### S-511-7-4

This unit contains emission limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. This unit has no add-on controls. Therefore, this unit is not subject to CAM for any pollutant.

## **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.

### **B. Requirements not Addressed by Model General Permit Templates**

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

### **C. Obsolete Permit Shields From Existing Permit Requirements**

There are no obsolete permit shields from the existing permit requirements.

## **X. CALIFORNIA ENVIRONMENTAL QUALITY ACT**

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

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

## **XI. PERMIT CONDITIONS**

See Attachment A - Draft Renewed Title V Operating Permit.

## **ATTACHMENTS**

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

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# ATTACHMENT A

Draft Renewed Title V Operating Permit

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# San Joaquin Valley Air Pollution Control District

FACILITY: S-511-0-5

EXPIRATION DATE: 11/30/2020

## FACILITY-WIDE REQUIREMENTS

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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: SYCAMORE COGENERATION FACILITY  
Location: HEAVY OIL CENTRAL, 1546 CHINA GRADE LOOP, BAKERSFIELD, CA 93308  
S-511-0-5 : Sep 2 2021 3:57PM - MUTHANAM

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

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

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

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



34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
35. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
42. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin January 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
43. {2256} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] 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-511-1-20

**EXPIRATION DATE:** 11/30/2020

**SECTION:** 31 **TOWNSHIP:** 28S **RANGE:** 28E

## **EQUIPMENT DESCRIPTION:**

75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (SYCAMORE UNIT #1)

## **PERMIT UNIT REQUIREMENTS**

1. Excess emissions indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
2. The CGT combustors shall be a dry low NOx design capable of achieving 3 ppm or lower at 15% O2. [PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.015% by volume, 150 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a) and Kern County Rule 407] Federally Enforceable Through Title V Permit
4. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO2. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emission rates from CGT shall not exceed any of the following: PM10 - 5.0 lb/hr, SOx (as SO2) - 0.9 lb/hr, or VOC - 2.5 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emission rates from CGT shall not exceed any of the following: PM10 - 120.0 lb/day, SOx (as SO2) - 21.6 lb/day, NOx (as NO2) - 552.8 lb/day, VOC - 60.0 lb/day, or CO - 1056.0 lb/day. [District Rule 2201 and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
7. Emission rates from CGT, except during startup, shutdown, tuning start-up, and/or reduced load periods, shall not exceed any of the following: NOx (as NO2) - 3 ppmvd @ 15% O2, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O2, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703, 5.1.2 & 5.2; and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
8. NO2 and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
9. During startup, shutdown, and tuning start-up, emissions shall not exceed any of the following: 140.0 lb/hr of NOx on a 2-hr avg, 140 lb/hr of CO on a 2-hr avg, or 200 lb/hr of CO on a 1-hr avg. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Annual NOx emissions (as NO2) from all four CTG's (S-511-1, S-511-2, S-511-3, and S-511-4) calculated on a twelve month rolling basis shall not exceed 271,200 lb NOx / yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.29 and 3.26] Federally Enforceable Through Title V Permit
12. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CGT is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
13. The duration of each startup or each shut down time shall not exceed two hours. Startup and shutdown emissions shall be counted toward all applicable emission limits. [District Rule 4703, 5.3.1] Federally Enforceable Through Title V Permit
14. Operations during periods of startup, shutdown, and tuning startup shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx emissions in excess of the level of the emission limit shown in this permit during periods of startup and shutdown be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)] Federally Enforceable Through Title V Permit
15. Each CGT shall have a maximum heat input rate of 1020 MMBTU/hr on an LHV basis. Firing rate can be increased upon District witnessed emission sampling demonstration that compliance with emission sampling limits can be achieved at higher fuel rates. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Permit unit shall include one unfired heat recovery steam generator (HRSG) for gas turbine engine assembly with rated steam output of 450,000 lb/hr at 80% quality steam production. [District Rule 2201] Federally Enforceable Through Title V Permit
17. CGT may exhaust either through unfired 450,000 lb/hr heat recovery steam generator or through bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
18. When operating in cogeneration mode, exhaust gas ducting from CGT's through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Bypass stack valve preceding each HRSG shall be designed to be gas-tight to the atmosphere when exhaust is discharged through HRSG and shall be designed to be gas-tight to the HRSG when exhaust is discharged through the bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
20. At such times as specified by the USEPA, permittee shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for CO on the exhaust stack gases and furnish the District, the California ARB and the USEPA a written report of the results of such tests. All performance tests shall be conducted on an annual basis and at the maximum operating capacity of the emissions unit being tested. Upon written request from permittee, and adequate justification, USEPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 85- 09] Federally Enforceable Through Title V Permit
21. {2270} All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
22. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of USEPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from the USEPA. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
23. Annual compliance tests shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

24. Operator shall conform with the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
25. For performance test purposes, sampling ports, platforms, and access shall be provided by the facility on the emission unit exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 85-09] Federally Enforceable Through Title V Permit
26. Source testing to determine NOx and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The owner or operator shall provide source test information annually regarding the exhaust gas NOx and CO concentration corrected to 15% O2 (dry). EPA Methods 7E or 20 shall be used for NOx emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. [40 CFR 60.8(a), 40 CFR 60.335(b) and District Rule 4703, 5.1, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
28. Performance tests for the emissions of CO shall be conducted and results reported in accordance with the test methods set forth in 40 CFR 60.8 and 40 CFR 60, Appendix A. The performance tests for the emissions of CO shall be conducted using EPA Methods 1 through 4 and 10. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
29. The owner or operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703 (as amended 9/20/07), 5.1.1 and 6.4.6. [40 CFR 60.332(a) and (b) and District Rule 4703, 5.1.1 and 6.4.6] Federally Enforceable Through Title V Permit
30. The operator shall perform source testing for PM10 concentration and emission rate once per permit term using EPA Method 5. [40 CFR 60.8 (b) and (c)] Federally Enforceable Through Title V Permit
31. Audits of continuous emission monitoring system shall be conducted in accordance with EPA guidelines, witnessed at the District's discretion, and reports shall be submitted to the District within 60 days of such an audit. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
32. The Relative Accuracy Audit shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
33. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.1.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
34. Continuous emission monitoring system for NOx as NO2 and continuous monitoring system for CO & CO2 shall serve each CGT flue gas stream, shall conform to SJVUAPCD Rule 1080 specifications, shall meet EPA monitoring performance specifications, & shall be operational whenever the turbine is in operation. [District Rule 1080 and PSD SJ 85-09, X.D.1 and .2] Federally Enforceable Through Title V Permit
35. {2250} The continuous NOx and O2 monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
36. All continuous emissions monitoring systems shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60, Appendix B and 40 CFR 52, Appendix E. CEM ppm and lb/hr shall be calculated as a three-hour and a 1-hour average. [District Rule 1080 and PSD SJ 85-09 X.D.2] Federally Enforceable Through Title V Permit
37. {2272} Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NOx, EPA Test Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O2, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] 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.

38. Each 1-hour period in a 1, 2 or 3-hour average will commence on the hour. The 3-hour average will be compiled from the three most recent 1-hour periods. The 2-hour average will be compiled from the two most recent 1-hour periods. [District Rule 1080] Federally Enforceable Through Title V Permit
39. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
40. Operator shall operate and maintain in calibration a system which continuously measures and records the following: control system operating parameters, elapsed time of operation, the exhaust gas NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> concentration. [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
41. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, tuning start-up, or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
42. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
43. Daily records of NO<sub>2</sub> and CO emission calculations during days of gas turbine startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1080] Federally Enforceable Through Title V Permit
44. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
45. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the following: the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(b); District Rules 2520, 9.4.2 and 4703, 6.2.6; PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
46. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.23] Federally Enforceable Through Title V Permit
47. The operator performing start-up or shutdown of this unit shall keep records of the duration of start-up or shutdown. [District Rule 4703, 6.2.8] Federally Enforceable Through Title V Permit
48. {2254} APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
49. {2251} The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
50. Each exhaust stack shall be equipped with permanent stack sampling provisions consistent with District Rule 1081, EPA reference Methods 5 and 8 and OSHA requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
51. Each CGT shall have a fuel consumption monitor/recorder. [District Rule 2201 and PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
52. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Sycamore Cogeneration Company. [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.

53. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and carbon monoxide (CO) flue gas concentrations corrected to 15% O<sub>2</sub>, dry and CGT fuel sulfur content shall be maintained and shall be reported as described by District Rule 1080 and upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
54. Operator shall submit a quarterly report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
55. Quarterly continuous emission monitoring system reports shall be submitted to the District, EPA and CEC, as required by EPA regulations as specified in CFR Title 40, Part 58, Appendix B and Part 60 Appendix B. [District Rule 1080 and PSD SJ 85-09, X.D.5] Federally Enforceable Through Title V Permit
56. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO and EPA. The report is due on the 30th day following the end of the calendar quarter and shall include the following: A. time intervals, data and magnitude of excess emissions (computed in accordance with 40 CFR 60.13(h)), nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard. [40 CFR 60.334 (j)(5); District Rule 1080, 8.0 and PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
57. The written report for each calendar quarter shall also include the following: C. 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; D. a negative declaration when no excess emissions occurred. Excess emissions shall be defined as any 3-hour period during which the average emissions for CO, as measured by the CEM system, exceeds the emission limit set forth in PSD SJ 85-09, X.E. [District Rule 1080, 8.0; PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
58. A violation of NO<sub>x</sub> emission standards indicated by the NO<sub>x</sub> CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
59. The APCO shall be notified no later than one hour after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rules 1080, 10.0 and 1100, 6.1; PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
60. The Regional Administrator shall be notified by telephone within 48 hours 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 emissions limit stated in this permit. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
61. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions of this permit, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
62. CGT shall be fired on natural gas only. There shall be no provisions for oil firing. Natural gas used as fuel shall be pipeline quality with sulfur content of 0.3 gr/100 scf or less (0.001% sulfur by weight). [District Rule 2201; Kern County Rule 407] Federally Enforceable Through Title V Permit
63. The HHV and LHV of the gaseous fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
64. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
65. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3246, D4468 or D6667. [40 CFR 60.335(b)(10)] 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.

66. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested in accordance with the requirements of 40 CFR 60.334 (h) and 40 CFR 60.334(i). [40 CFR 60.334 (h) and 40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
67. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
68. The owner and operator of the proposed project shall construct and operate the proposed 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 SJ 85-09] Federally Enforceable Through Title V Permit
69. The cogeneration facility is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 CFR 60). The owner or operator shall meet all applicable requirements of Subparts A and GG of this regulation. [PSD SJ 85- 09] Federally Enforceable Through Title V Permit
70. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726-0244; and d) the California Energy Commission, 1516 Ninth Street, Sacramento, CA, 95814-5512. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
71. Compliance with permit conditions in the Title V permit shall be deemed compliance with the Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a), and (b); 60.333 (a); 60.334 (b), (c), (h), (i) and (j)(5); and 60.335 (b). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
73. {2282} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-511-2-21

**EXPIRATION DATE:** 11/30/2020

**SECTION:** 31 **TOWNSHIP:** 28S **RANGE:** 28E

## **EQUIPMENT DESCRIPTION:**

75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (SYCAMORE UNIT #2)

## **PERMIT UNIT REQUIREMENTS**

1. Excess emissions indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
2. The CGT combustors shall be a dry low NOx design capable of achieving 3 ppm or lower at 15% O2. [PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.015% by volume, 150 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a) and Kern County Rule 407] Federally Enforceable Through Title V Permit
4. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO2. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emission rates from CGT shall not exceed any of the following: PM10 - 5.0 lb/hr, SOx (as SO2) - 0.9 lb/hr, or VOC - 2.5 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emission rates from CGT shall not exceed any of the following: PM10 - 120.0 lb/day, SOx (as SO2) - 21.6 lb/day, NOx (as NO2) - 552.8 lb/day, VOC - 60.0 lb/day, or CO - 1056.0 lb/day. [District Rule 2201 and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
7. Emission rates from CGT, except during startup, shutdown, tuning start-up, and/or reduced load periods, shall not exceed any of the following: NOx (as NO2) - 3 ppmvd @ 15% O2, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O2, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703, 5.1.2 & 5.2; and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
8. NO2 and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
9. During startup, shutdown, and tuning start-up, emissions shall not exceed any of the following: 140.0 lb/hr of NOx on a 2-hr avg, 140 lb/hr of CO on a 2-hr avg, or 200 lb/hr of CO on a 1-hr avg. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Annual NOx emissions (as NO2) from all four CTG's (S-511-1, S-511-2, S-511-3, and S-511-4) calculated on a twelve month rolling basis shall not exceed 271,200 lb NOx / yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



11. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.29 and 3.26] Federally Enforceable Through Title V Permit
12. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CGT is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
13. The duration of each startup or each shut down time shall not exceed two hours. Startup and shutdown emissions shall be counted toward all applicable emission limits. [District Rule 4703, 5.3.1] Federally Enforceable Through Title V Permit
14. Operations during periods of startup, shutdown, and tuning startup shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx emissions in excess of the level of the emission limit shown in this permit during periods of startup and shutdown be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)] Federally Enforceable Through Title V Permit
15. Each CGT shall have a maximum heat input rate of 1020 MMBTU/hr on an LHV basis. Firing rate can be increased upon District witnessed emission sampling demonstration that compliance with emission sampling limits can be achieved at higher fuel rates. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Permit unit shall include one unfired heat recovery steam generator (HRSG) for gas turbine engine assembly with rated steam output of 450,000 lb/hr at 80% quality steam production. [District Rule 2201] Federally Enforceable Through Title V Permit
17. CGT may exhaust either through unfired 450,000 lb/hr heat recovery steam generator or through bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
18. When operating in cogeneration mode, exhaust gas ducting from CGT's through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Bypass stack valve preceding each HRSG shall be designed to be gas-tight to the atmosphere when exhaust is discharged through HRSG and shall be designed to be gas-tight to the HRSG when exhaust is discharged through the bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
20. At such times as specified by the USEPA, permittee shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for CO on the exhaust stack gases and furnish the District, the California ARB and the USEPA a written report of the results of such tests. All performance tests shall be conducted on an annual basis and at the maximum operating capacity of the emissions unit being tested. Upon written request from permittee, and adequate justification, USEPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 85- 09] Federally Enforceable Through Title V Permit
21. {2270} All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
22. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of USEPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from the USEPA. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
23. Annual compliance tests shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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24. Operator shall conform with the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
25. For performance test purposes, sampling ports, platforms, and access shall be provided by the facility on the emission unit exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 85-09] Federally Enforceable Through Title V Permit
26. Source testing to determine NOx and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The owner or operator shall provide source test information annually regarding the exhaust gas NOx and CO concentration corrected to 15% O2 (dry). EPA Methods 7E or 20 shall be used for NOx emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. [40 CFR 60.8(a), 40 CFR 60.335(b) and District Rule 4703, 5.1, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
28. Performance tests for the emissions of CO shall be conducted and results reported in accordance with the test methods set forth in 40 CFR 60.8 and 40 CFR 60, Appendix A. The performance tests for the emissions of CO shall be conducted using EPA Methods 1 through 4 and 10. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
29. The owner or operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703 (as amended 9/20/07), 5.1.1 and 6.4.6. [40 CFR 60.332(a) and (b) and District Rule 4703, 5.1.1 and 6.4.6] Federally Enforceable Through Title V Permit
30. The operator shall perform source testing for PM10 concentration and emission rate once per permit term using EPA Method 5. [40 CFR 60.8 (b) and (c)] Federally Enforceable Through Title V Permit
31. Audits of continuous emission monitoring system shall be conducted in accordance with EPA guidelines, witnessed at the District's discretion, and reports shall be submitted to the District within 60 days of such an audit. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
32. The Relative Accuracy Audit shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
33. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.1.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
34. Continuous emission monitoring system for NOx as NO2 and continuous monitoring system for CO & CO2 shall serve each CGT flue gas stream, shall conform to SJVUAPCD Rule 1080 specifications, shall meet EPA monitoring performance specifications, & shall be operational whenever the turbine is in operation. [District Rule 1080 and PSD SJ 85-09, X.D.1 and .2] Federally Enforceable Through Title V Permit
35. {2250} The continuous NOx and O2 monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
36. All continuous emissions monitoring systems shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60, Appendix B and 40 CFR 52, Appendix E. CEM ppm and lb/hr shall be calculated as a three-hour and a 1-hour average. [District Rule 1080 and PSD SJ 85-09 X.D.2] Federally Enforceable Through Title V Permit
37. {2272} Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NOx, EPA Test Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O2, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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38. Each 1-hour period in a 1, 2 or 3-hour average will commence on the hour. The 3-hour average will be compiled from the three most recent 1-hour periods. The 2-hour average will be compiled from the two most recent 1-hour periods. [District Rule 1080] Federally Enforceable Through Title V Permit
39. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
40. Operator shall operate and maintain in calibration a system which continuously measures and records the following: control system operating parameters, elapsed time of operation, the exhaust gas NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> concentration. [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
41. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, tuning start-up, or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
42. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
43. Daily records of NO<sub>2</sub> and CO emission calculations during days of gas turbine startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1080] Federally Enforceable Through Title V Permit
44. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
45. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the following: the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(b); District Rules 2520, 9.4.2 and 4703, 6.2.6; PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
46. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.23] Federally Enforceable Through Title V Permit
47. The operator performing start-up or shutdown of this unit shall keep records of the duration of start-up or shutdown. [District Rule 4703, 6.2.8] Federally Enforceable Through Title V Permit
48. {2254} APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
49. {2251} The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
50. When CGT exhausts to bypass stack, the CEM probe located in the transition section shall be used to measure exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> or CO<sub>2</sub> concentration. [District Rule 2201] Federally Enforceable Through Title V Permit
51. Each exhaust stack shall be equipped with permanent stack sampling provisions consistent with District Rule 1081, EPA reference Methods 5 and 8 and OSHA requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
52. Each CGT shall have a fuel consumption monitor/recorder. [District NSR Rule and PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
53. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Sycamore Cogeneration Company. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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54. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and carbon monoxide (CO) flue gas concentrations corrected to 15% O<sub>2</sub>, dry and CGT fuel sulfur content shall be maintained and shall be reported as described by District Rule 1080 and upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
55. Operator shall submit a quarterly report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
56. Quarterly continuous emission monitoring system reports shall be submitted to the District, EPA and CEC, as required by EPA regulations as specified in CFR Title 40, Part 58, Appendix B and Part 60 Appendix B. [District Rule 1080 and PSD SJ 85-09, X.D.5] Federally Enforceable Through Title V Permit
57. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO and EPA. The report is due on the 30th day following the end of the calendar quarter and shall include the following: A. time intervals, data and magnitude of excess emissions (computed in accordance with 40 CFR 60.13(h)), nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard. [40 CFR 60.334 (j)(5); District Rule 1080, 8.0 and PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
58. The written report for each calendar quarter shall also include the following: C. 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; D. a negative declaration when no excess emissions occurred. Excess emissions shall be defined as any 3-hour period during which the average emissions for CO, as measured by the CEM system, exceeds the emission limit set forth in PSD SJ 85-09, X.E. [District Rule 1080, 8.0; PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
59. A violation of NO<sub>x</sub> emission standards indicated by the NO<sub>x</sub> CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
60. The APCO shall be notified no later than one hour after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rules 1080, 10.0 and 1100, 6.1; PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
61. The Regional Administrator shall be notified by telephone within 48 hours 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 emissions limit stated in this permit. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
62. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions of this permit, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
63. CGT shall be fired on natural gas only. There shall be no provisions for oil firing. Natural gas used as fuel shall be pipeline quality with sulfur content of 0.3 gr/100 scf or less (0.001% sulfur by weight). [District Rule 2201; Kern County Rule 407] Federally Enforceable Through Title V Permit
64. The HHV and LHV of the gaseous fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
65. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
66. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3246, D4468 or D6667. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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67. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested in accordance with the requirements of 40 CFR 60.334 (h) and 40 CFR 60.334(i). [40 CFR 60.334 (h) and 40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
68. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
69. The owner and operator of the proposed project shall construct and operate the proposed 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 SJ 85-09] Federally Enforceable Through Title V Permit
70. The cogeneration facility is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 CFR 60). The owner or operator shall meet all applicable requirements of Subparts A and GG of this regulation. [PSD SJ 85- 09] Federally Enforceable Through Title V Permit
71. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726-0244; and d) the California Energy Commission, 1516 Ninth Street, Sacramento, CA, 95814-5512. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit shall be deem compliance with the Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
73. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a), and (b); 60.333 (a); 60.334 (b), (c), (h), (i) and (j)(5); and 60.335 (b). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
74. {2282} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-511-3-21

**EXPIRATION DATE:** 11/30/2020

**SECTION:** 31 **TOWNSHIP:** 28S **RANGE:** 28E

## **EQUIPMENT DESCRIPTION:**

75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (SYCAMORE UNIT #3)

## **PERMIT UNIT REQUIREMENTS**

1. Excess emissions indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
2. The CGT combustors shall be a dry low NOx design capable of achieving 3 ppm or lower at 15% O2. [PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.015% by volume, 150 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a) and Kern County Rule 407] Federally Enforceable Through Title V Permit
4. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO2. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emission rates from CGT shall not exceed any of the following: PM10 - 5.0 lb/hr, SOx (as SO2) - 0.9 lb/hr, or VOC - 2.5 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emission rates from CGT shall not exceed any of the following: PM10 - 120.0 lb/day, SOx (as SO2) - 21.6 lb/day, NOx (as NO2) - 552.8 lb/day, VOC - 60.0 lb/day, or CO - 1056.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from CGT, except during startup, shutdown, tuning start-up, and/or reduced load periods, shall not exceed any of the following: NOx (as NO2) - 3 ppmvd @ 15% O2, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O2, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703, 5.1.2 & 5.2; and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
8. During startup, shutdown, and tuning start-up, emissions shall not exceed any of the following: 140.0 lb/hr of NOx on a 2-hr avg, 140 lb/hr of CO on a 2-hr avg, or 200 lb/hr of CO on a 1-hr avg. [District Rule 2201] Federally Enforceable Through Title V Permit
9. NO2 and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
10. Annual NOx emissions (as NO2) from all four CTG's (S-511-1, S-511-2, S-511-3, and S-511-4) calculated on a twelve month rolling basis shall not exceed 271,200 lb NOx / yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.29 and 3.26] Federally Enforceable Through Title V Permit
12. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CGT is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
13. The duration of each startup or each shut down time shall not exceed two hours. Startup and shutdown emissions shall be counted toward all applicable emission limits. [District Rule 4703, 5.3.1] Federally Enforceable Through Title V Permit
14. Operations during periods of startup, shutdown, and tuning startup shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx emissions in excess of the level of the emission limit shown in this permit during periods of startup and shutdown be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)] Federally Enforceable Through Title V Permit
15. Each CGT shall have a maximum heat input rate of 1020 MMBTU/hr on an LHV basis. Firing rate can be increased upon District witnessed emission sampling demonstration that compliance with emission sampling limits can be achieved at higher fuel rates. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Permit unit shall include one unfired heat recovery steam generator (HRSG) for gas turbine engine assembly with rated steam output of 450,000 lb/hr at 80% quality steam production. [District Rule 2201] Federally Enforceable Through Title V Permit
17. CGT may exhaust either through unfired 450,000 lb/hr heat recovery steam generator or through bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
18. When operating in cogeneration mode, exhaust gas ducting from CGT's through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit
19. When CGT exhausts to bypass stack, the CEM probe located in the transition section shall be used to measure exhaust gas NOx, CO and O2 or CO2 concentration. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Bypass stack valve preceding each HRSG shall be designed to be gas-tight to the atmosphere when exhaust is discharged through HRSG and shall be designed to be gas-tight to the HRSG when exhaust is discharged through the bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
21. At such times as specified by the USEPA, permittee shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for CO on the exhaust stack gases and furnish the District, the California ARB and the USEPA a written report of the results of such tests. All performance tests shall be conducted on an annual basis and at the maximum operating capacity of the emissions unit being tested. Upon written request from permittee, and adequate justification, USEPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 85- 09] Federally Enforceable Through Title V Permit
22. {2270} All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
23. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of USEPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from the USEPA. [PSD SJ 85-09] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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24. Annual compliance tests shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1081] Federally Enforceable Through Title V Permit
25. Operator shall conform with the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
26. For performance test purposes, sampling ports, platforms, and access shall be provided by the facility on the emission unit exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 85-09] Federally Enforceable Through Title V Permit
27. Source testing to determine NOx and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
28. The owner or operator shall provide source test information annually regarding the exhaust gas NOx and CO concentration corrected to 15% O2 (dry). EPA Methods 7E or 20 shall be used for NOx emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. [40 CFR 60.8(a), 40 CFR 60.335(b) and District Rule 4703, 5.1, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
29. Performance tests for the emissions of CO shall be conducted and results reported in accordance with the test methods set forth in 40 CFR 60.8 and 40 CFR 60, Appendix A. The performance tests for the emissions of CO shall be conducted using EPA Methods 1 through 4 and 10. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
30. The owner or operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703 (as amended 9/20/07), 5.1.1 and 6.4.6. [40 CFR 60.332(a) and (b) and District Rule 4703, 5.1.1 and 6.4.6] Federally Enforceable Through Title V Permit
31. The operator shall perform source testing for PM10 concentration and emission rate once per permit term using EPA Method 5. [40 CFR 60.8 (b) and (c)] Federally Enforceable Through Title V Permit
32. Audits of continuous emission monitoring system shall be conducted in accordance with EPA guidelines, witnessed at the District's discretion, and reports shall be submitted to the District within 60 days of such an audit. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
33. The Relative Accuracy Audit shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
34. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.1.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
35. Continuous emission monitoring system for NOx as NO2 and continuous monitoring system for CO & CO2 shall serve each CGT flue gas stream, shall conform to SJVUAPCD Rule 1080 specifications, shall meet EPA monitoring performance specifications, & shall be operational whenever the turbine is in operation. [District Rule 1080 and PSD SJ 85-09, X.D.1 and .2] Federally Enforceable Through Title V Permit
36. {2250} The continuous NOx and O2 monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
37. All continuous emissions monitoring systems shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60, Appendix B and 40 CFR 52, Appendix E. CEM ppm and lb/hr shall be calculated as a three-hour and a 1-hour average. [District Rule 1080 and PSD SJ 85-09 X.D.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



38. {2272} Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NO<sub>x</sub>, EPA Test Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O<sub>2</sub>, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
39. Each 1-hour period in a 1, 2 or 3-hour average will commence on the hour. The 3-hour average will be compiled from the three most recent 1-hour periods. The 2-hour average will be compiled from the two most recent 1-hour periods. [District Rule 1080] Federally Enforceable Through Title V Permit
40. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
41. Operator shall operate and maintain in calibration a system which continuously measures and records the following: control system operating parameters, elapsed time of operation, the exhaust gas NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> concentration. [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
42. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, tuning start-up, or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
43. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
44. Daily records of NO<sub>2</sub> and CO emission calculations during days of gas turbine startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1080] Federally Enforceable Through Title V Permit
45. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
46. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the following: the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(b); District Rules 2520, 9.4.2 and 4703, 6.2.6; PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
47. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.23] Federally Enforceable Through Title V Permit
48. The operator performing start-up or shutdown of this unit shall keep records of the duration of start-up or shutdown. [District Rule 4703, 6.2.8] Federally Enforceable Through Title V Permit
49. {2254} APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
50. {2251} The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
51. Each exhaust stack shall be equipped with permanent stack sampling provisions consistent with District Rule 1081, EPA reference Methods 5 and 8 and OSHA requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
52. Each CGT shall have a fuel consumption monitor/recorder. [District NSR Rule and PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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53. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Sycamore Cogeneration Company. [District Rule 2201] Federally Enforceable Through Title V Permit
54. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and carbon monoxide (CO) flue gas concentrations corrected to 15% O<sub>2</sub>, dry and CGT fuel sulfur content shall be maintained and shall be reported as described by District Rule 1080 and upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
55. Operator shall submit a quarterly report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
56. Quarterly continuous emission monitoring system reports shall be submitted to the District, EPA and CEC, as required by EPA regulations as specified in CFR Title 40, Part 58, Appendix B and Part 60 Appendix B. [District Rule 1080 and PSD SJ 85-09, X.D.5] Federally Enforceable Through Title V Permit
57. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO and EPA. The report is due on the 30th day following the end of the calendar quarter and shall include the following: A. time intervals, data and magnitude of excess emissions (computed in accordance with 40 CFR 60.13(h)), nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard. [40 CFR 60.334 (j)(5); District Rule 1080, 8.0 and PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
58. The written report for each calendar quarter shall also include the following: C. 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; D. a negative declaration when no excess emissions occurred. Excess emissions shall be defined as any 3-hour period during which the average emissions for CO, as measured by the CEM system, exceeds the emission limit set forth in PSD SJ 85-09, X.E. [District Rule 1080, 8.0; PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
59. A violation of NO<sub>x</sub> emission standards indicated by the NO<sub>x</sub> CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
60. The APCO shall be notified no later than one hour after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rules 1080, 10.0 and 1100, 6.1; PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
61. The Regional Administrator shall be notified by telephone within 48 hours 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 emissions limit stated in this permit. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
62. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions of this permit, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
63. CGT shall be fired on natural gas only. There shall be no provisions for oil firing. Natural gas used as fuel shall be pipeline quality with sulfur content of 0.3 gr/100 scf or less (0.001% sulfur by weight). [District Rule 2201; Kern County Rule 407] Federally Enforceable Through Title V Permit
64. The HHV and LHV of the gaseous fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
65. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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66. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3246, D4468 or D6667. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
67. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested in accordance with the requirements of 40 CFR 60.334 (h) and 40 CFR 60.334(i). [40 CFR 60.334 (h) and 40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
68. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
69. The owner and operator of the proposed project shall construct and operate the proposed 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 SJ 85-09] Federally Enforceable Through Title V Permit
70. The cogeneration facility is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 CFR 60). The owner or operator shall meet all applicable requirements of Subparts A and GG of this regulation. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
71. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726-0244; and d) the California Energy Commission, 1516 Ninth Street, Sacramento, CA, 95814-5512. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit shall be deemed compliance with the Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
73. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a), and (b); 60.333 (a); 60.334 (b), (c), (h), (i) and (j)(5); and 60.335 (b). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
74. {2282} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-511-4-20

**EXPIRATION DATE:** 11/30/2020

**SECTION:** 31 **TOWNSHIP:** 28S **RANGE:** 28E

## **EQUIPMENT DESCRIPTION:**

75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (SYCAMORE UNIT #4)

## **PERMIT UNIT REQUIREMENTS**

1. Excess emissions indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
2. The CGT combustors shall be a dry low NOx design capable of achieving 3 ppm or lower at 15% O2. [PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.015% by volume, 150 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a) and Kern County Rule 407] Federally Enforceable Through Title V Permit
4. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO2. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emission rates from CGT shall not exceed any of the following: PM10 - 5.0 lb/hr, SOx (as SO2) - 0.9 lb/hr, or VOC - 2.5 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emission rates from CGT shall not exceed any of the following: PM10 - 120.0 lb/day, SOx (as SO2) - 21.6 lb/day, NOx (as NO2) - 552.8 lb/day, VOC - 60.0 lb/day, or CO - 1056.0 lb/day. [District Rule 2201 and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
7. Emission rates from CGT, except during startup, shutdown, tuning start-up, and/or reduced load periods, shall not exceed any of the following: NOx (as NO2) - 3 ppmvd @ 15% O2, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O2, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703, 5.1.2 & 5.2; and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
8. NO2 and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
9. During startup, shutdown, and tuning start-up, emissions shall not exceed any of the following: 140.0 lb/hr of NOx on a 2-hr avg, 140 lb/hr of CO on a 2-hr avg, or 200 lb/hr of CO on a 1-hr avg. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Annual NOx emissions (as NO2) from all four CTG's (S-511-1, S-511-2, S-511-3, and S-511-4) calculated on a twelve month rolling basis shall not exceed 271,200 lb NOx / yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.29 and 3.26] Federally Enforceable Through Title V Permit
12. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CGT is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
13. The duration of each startup or each shut down time shall not exceed two hours. Startup and shutdown emissions shall be counted toward all applicable emission limits. [District Rule 4703, 5.3.1] Federally Enforceable Through Title V Permit
14. Operations during periods of startup, shutdown, and tuning startup shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx emissions in excess of the level of the emission limit shown in this permit during periods of startup and shutdown be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)] Federally Enforceable Through Title V Permit
15. Each CGT shall have a maximum heat input rate of 1020 MMBTU/hr on an LHV basis. Firing rate can be increased upon District witnessed emission sampling demonstration that compliance with emission sampling limits can be achieved at higher fuel rates. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Permit unit shall include one unfired heat recovery steam generator (HRSG) for gas turbine engine assembly with rated steam output of 450,000 lb/hr at 80% quality steam production. [District Rule 2201] Federally Enforceable Through Title V Permit
17. CGT may exhaust either through unfired 450,000 lb/hr heat recovery steam generator or through bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
18. When operating in cogeneration mode, exhaust gas ducting from CGT's through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Bypass stack valve preceding each HRSG shall be designed to be gas-tight to the atmosphere when exhaust is discharged through HRSG and shall be designed to be gas-tight to the HRSG when exhaust is discharged through the bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
20. At such times as specified by the USEPA, permittee shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for CO on the exhaust stack gases and furnish the District, the California ARB and the USEPA a written report of the results of such tests. All performance tests shall be conducted on an annual basis and at the maximum operating capacity of the emissions unit being tested. Upon written request from permittee, and adequate justification, USEPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 85- 09] Federally Enforceable Through Title V Permit
21. {2270} All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
22. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of USEPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from the USEPA. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
23. Annual compliance tests shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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24. Operator shall conform with the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
25. For performance test purposes, sampling ports, platforms, and access shall be provided by the facility on the emission unit exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 85-09] Federally Enforceable Through Title V Permit
26. Source testing to determine NOx and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The owner or operator shall provide source test information annually regarding the exhaust gas NOx and CO concentration corrected to 15% O2 (dry). EPA Methods 7E or 20 shall be used for NOx emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. [40 CFR 60.8(a), 40 CFR 60.335(b) and District Rule 4703, 5.1, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
28. Performance tests for the emissions of CO shall be conducted and results reported in accordance with the test methods set forth in 40 CFR 60.8 and 40 CFR 60, Appendix A. The performance tests for the emissions of CO shall be conducted using EPA Methods 1 through 4 and 10. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
29. The owner or operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703 (as amended 9/20/07), 5.1.1 and 6.4.6. [40 CFR 60.332(a) and (b) and District Rule 4703, 5.1.1 and 6.4.6] Federally Enforceable Through Title V Permit
30. The operator shall perform source testing for PM10 concentration and emission rate once per permit term using EPA Method 5. [40 CFR 60.8 (b) and (c)] Federally Enforceable Through Title V Permit
31. Audits of continuous emission monitoring system shall be conducted in accordance with EPA guidelines, witnessed at the District's discretion, and reports shall be submitted to the District within 60 days of such an audit. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
32. The Relative Accuracy Audit shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
33. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.1.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
34. Continuous emission monitoring system for NOx as NO2 and continuous monitoring system for CO & CO2 shall serve each CGT flue gas stream, shall conform to SJVUAPCD Rule 1080 specifications, shall meet EPA monitoring performance specifications, & shall be operational whenever the turbine is in operation. [District Rule 1080 and PSD SJ 85-09, X.D.1 and .2] Federally Enforceable Through Title V Permit
35. {2250} The continuous NOx and O2 monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
36. All continuous emissions monitoring systems shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60, Appendix B and 40 CFR 52, Appendix E. CEM ppm and lb/hr shall be calculated as a three-hour and a 1-hour average. [District Rule 1080 and PSD SJ 85-09 X.D.2] Federally Enforceable Through Title V Permit
37. {2272} Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NOx, EPA Test Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O2, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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38. Each 1-hour period in a 1, 2 or 3-hour average will commence on the hour. The 3-hour average will be compiled from the three most recent 1-hour periods. The 2-hour average will be compiled from the two most recent 1-hour periods. [District Rule 1080] Federally Enforceable Through Title V Permit
39. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
40. Operator shall operate and maintain in calibration a system which continuously measures and records the following: control system operating parameters, elapsed time of operation, the exhaust gas NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> concentration. [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
41. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, tuning start-up, or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
42. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
43. Daily records of NO<sub>2</sub> and CO emission calculations during days of gas turbine startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1080] Federally Enforceable Through Title V Permit
44. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
45. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the following: the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(b); District Rules 2520, 9.4.2 and 4703, 6.2.6; PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
46. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.23] Federally Enforceable Through Title V Permit
47. The operator performing start-up or shutdown of this unit shall keep records of the duration of start-up or shutdown. [District Rule 4703, 6.2.8] Federally Enforceable Through Title V Permit
48. {2254} APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
49. {2251} The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
50. Each exhaust stack shall be equipped with permanent stack sampling provisions consistent with District Rule 1081, EPA reference Methods 5 and 8 and OSHA requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
51. Each CGT shall have a fuel consumption monitor/recorder. [District Rule 2201 and PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
52. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Sycamore Cogeneration Company. [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.

53. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and carbon monoxide (CO) flue gas concentrations corrected to 15% O<sub>2</sub>, dry and CGT fuel sulfur content shall be maintained and shall be reported as described by District Rule 1080 and upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
54. Operator shall submit a quarterly report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
55. Quarterly continuous emission monitoring system reports shall be submitted to the District, EPA and CEC, as required by EPA regulations as specified in CFR Title 40, Part 58, Appendix B and Part 60 Appendix B. [District Rule 1080 and PSD SJ 85-09, X.D.5] Federally Enforceable Through Title V Permit
56. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO and EPA. The report is due on the 30th day following the end of the calendar quarter and shall include the following: A. time intervals, data and magnitude of excess emissions (computed in accordance with 40 CFR 60.13(h)), nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard. [40 CFR 60.334 (j)(5); District Rule 1080, 8.0 and PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
57. The written report for each calendar quarter shall also include the following: C. 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; D. a negative declaration when no excess emissions occurred. Excess emissions shall be defined as any 3-hour period during which the average emissions for CO, as measured by the CEM system, exceeds the emission limit set forth in PSD SJ 85-09, X.E. [District Rule 1080, 8.0; PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
58. A violation of NO<sub>x</sub> emission standards indicated by the NO<sub>x</sub> CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
59. The APCO shall be notified no later than one hour after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rules 1080, 10.0 and 1100, 6.1; PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
60. The Regional Administrator shall be notified by telephone within 48 hours 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 emissions limit stated in this permit. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
61. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions of this permit, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
62. CGT shall be fired on natural gas only. There shall be no provisions for oil firing. Natural gas used as fuel shall be pipeline quality with sulfur content of 0.3 gr/100 scf or less (0.001% sulfur by weight). [District Rule 2201; Kern County Rule 407] Federally Enforceable Through Title V Permit
63. The HHV and LHV of the gaseous fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
64. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
65. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3246, D4468 or D6667. [40 CFR 60.335(b)(10)] 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.



66. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested in accordance with the requirements of 40 CFR 60.334 (h) and 40 CFR 60.334(i). [40 CFR 60.334 (h) and 40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
67. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
68. The owner and operator of the proposed project shall construct and operate the proposed 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 SJ 85-09] Federally Enforceable Through Title V Permit
69. The cogeneration facility is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 CFR 60). The owner or operator shall meet all applicable requirements of Subparts A and GG of this regulation. [PSD SJ 85- 09] Federally Enforceable Through Title V Permit
70. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726-0244; and d) the California Energy Commission, 1516 Ninth Street, Sacramento, CA, 95814-5512. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
71. Compliance with permit conditions in the Title V permit shall be deem compliance with the Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a), and (b); 60.333 (a); 60.334 (b), (c), (h), (i) and (j)(5); and 60.335 (b). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
73. {2282} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

***San Joaquin Valley  
Air Pollution Control District***

**PERMIT UNIT:** S-511-5-5

**EXPIRATION DATE:** 11/30/2020

**SECTION:** 30 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

250 BHP CUMMINS DIESEL-FIRED EMERGENCY IC ENGINE POWERING A 1500 GPM FIREWATER PUMP

**PERMIT UNIT REQUIREMENTS**

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1. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rule 4801] Federally Enforceable Through Title V Permit
2. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4] Federally Enforceable Through Title V Permit
3. 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, 4.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
4. Permittee shall properly operate and maintain engine and monitor the operational characteristics of the engine as recommended by the engine manufacturer. [District Rule 4702, 5.7.2 and 5.7.3] Federally Enforceable Through Title V Permit
5. 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, 3.15] Federally Enforceable Through Title V Permit
6. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, and the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. The operator shall maintain copies of all fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. 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, 6.2.2] Federally Enforceable Through Title V Permit

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

*San Joaquin Valley  
Air Pollution Control District*

**PERMIT UNIT:** S-511-6-4

**EXPIRATION DATE:** 11/30/2020

**SECTION:** 32 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

CONFINED ABRASIVE BLASTING OPERATION (ABRASIVE BLASTING CABINET) WITH 100 LB CLEMCO INDUSTRIES (SILVERADO) BLASTING POT SERVED BY A DUST COLLECTOR

## PERMIT UNIT REQUIREMENTS

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1. The abrasive blasting shall be carried out in a manner to prevent any nuisances. [District Rule 4102]
2. Abrasive blasting operations conducted within the blasting cabinet / room 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]
3. All abrasive blasting shall be conducted in accordance with California Code of Regulations Title 17, Subchapter 6, Sections 92000 through 92540. [CCR]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-511-7-4

**EXPIRATION DATE:** 11/30/2020

**SECTION:** NE31 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

TRANSPORTABLE TIER-3 CERTIFIED DIESEL-FIRED IC ENGINE UP TO 532 HP POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. Permittee shall provide written notification to the District within 48 hours of operating an IC engine under this permit (if unit is located onsite longer than 24 hours). Such notification shall include the date the engine was brought onsite, the manufacturer, model number, maximum rated horsepower, and emissions information that documents that the engine meets the emission limits and requirements specified in the permit. [District Rule 1070] Federally Enforceable Through Title V Permit
2. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO-approved alternative. [District Rules 2201 and 4702, 5.7.4] Federally Enforceable Through Title V Permit
3. The engine shall not operate unless all four GTEs (S-511-1, -2, -3, -4) are shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall properly operate and maintain engine and monitor the operational characteristics of the engine as recommended by the engine manufacturer. [District Rule 4702, 5.7.2 and 5.7.3] Federally Enforceable Through Title V Permit
5. 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]
6. Operation of IC engine shall not exceed 200 hours/yr without prior District approval through issuance of an Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
7. NOx emissions (referenced as NO2) shall not exceed 2.3 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC emissions (referenced as methane) shall not exceed 0.16 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
9. CO emissions shall not exceed 0.6 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The PM10 emissions rate from the engine shall not exceed 0.12 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
11. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
12. The operator shall maintain records of the type of fuel used and cumulative hours of operation on a 12 month rolling average. These records shall be updated at least monthly. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit
13. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 4702, 6.2.2] Federally Enforceable Through Title V Permit

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

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# ATTACHMENT B

Previous Title V Operating Permit

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# *San Joaquin Valley*

## *Air Pollution Control District*

**FACILITY:** S-511-0-4

**EXPIRATION DATE:** 11/30/2020

### **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, 9.8.1 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: SYCAMORE COGENERATION FACILITY  
Location: HEAVY OIL CENTRAL, 1546 CHINA GRADE LOOP, BAKERSFIELD, CA 93308  
S-511-0-4 : Sep 2 2021 4:13PM - MUTHANAM

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, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. 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 8011 and 8021] 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 8011 and 8031] 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 8011 and 8041] 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 8011 and 8051] 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 8011 and 8061] 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 8011 and 8071] 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. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
42. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin January 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
43. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] 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-511-1-19

**EXPIRATION DATE:** 11/30/2020

**SECTION:** 31 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (SYCAMORE UNIT #1)

## **PERMIT UNIT REQUIREMENTS**

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1. Excess emissions indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
2. The CGT combustors shall be a dry low NOx design capable of achieving 3 ppm or lower at 15% O2. [PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.015% by volume, 150 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a) and Kern County Rule 407] Federally Enforceable Through Title V Permit
4. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO2. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emission rates from CGT shall not exceed any of the following: PM10 - 5.0 lb/hr, SOx (as SO2) - 0.9 lb/hr, or VOC - 2.5 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emission rates from CGT shall not exceed any of the following: PM10 - 120.0 lb/day, SOx (as SO2) - 21.6 lb/day, NOx (as NO2) - 552.8 lb/day, VOC - 60.0 lb/day, or CO - 1056.0 lb/day. [District Rule 2201 and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
7. Emission rates from CGT, except during startup, shutdown, tuning start-up, and/or reduced load periods, shall not exceed any of the following: NOx (as NO2) - 3 ppmvd @ 15% O2, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O2, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703, 5.1.2 & 5.2; and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
8. NO2 and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
9. During startup, shutdown, and tuning start-up, emissions shall not exceed any of the following: 140.0 lb/hr of NOx on a 2-hr avg, 140 lb/hr of CO on a 2-hr avg, or 200 lb/hr of CO on a 1-hr avg. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Annual NOx emissions (as NO2) from all four CTG's (S-511-1, S-511-2, S-511-3, and S-511-4) calculated on a twelve month rolling basis shall not exceed 271,200 lb NOx / yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.29 and 3.26] Federally Enforceable Through Title V Permit
12. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CGT is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
13. The duration of each startup or each shut down time shall not exceed two hours. Startup and shutdown emissions shall be counted toward all applicable emission limits. [District Rule 4703, 5.3.1] Federally Enforceable Through Title V Permit
14. Operations during periods of startup, shutdown, and tuning startup shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx emissions in excess of the level of the emission limit shown in this permit during periods of startup and shutdown be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)] Federally Enforceable Through Title V Permit
15. Each CGT shall have a maximum heat input rate of 1020 MMBTU/hr on an LHV basis. Firing rate can be increased upon District witnessed emission sampling demonstration that compliance with emission sampling limits can be achieved at higher fuel rates. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Permit unit shall include one unfired heat recovery steam generator (HRSG) for gas turbine engine assembly with rated steam output of 450,000 lb/hr at 80% quality steam production. [District Rule 2201] Federally Enforceable Through Title V Permit
17. CGT may exhaust either through unfired 450,000 lb/hr heat recovery steam generator or through bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
18. When operating in cogeneration mode, exhaust gas ducting from CGT's through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Bypass stack valve preceding each HRSG shall be designed to be gas-tight to the atmosphere when exhaust is discharged through HRSG and shall be designed to be gas-tight to the HRSG when exhaust is discharged through the bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
20. At such times as specified by the USEPA, permittee shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for CO on the exhaust stack gases and furnish the District, the California ARB and the USEPA a written report of the results of such tests. All performance tests shall be conducted on an annual basis and at the maximum operating capacity of the emissions unit being tested. Upon written request from permittee, and adequate justification, USEPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 85- 09] Federally Enforceable Through Title V Permit
21. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
22. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of USEPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from the USEPA. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
23. Annual compliance tests shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

24. Operator shall conform with the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
25. For performance test purposes, sampling ports, platforms, and access shall be provided by the facility on the emission unit exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 85-09] Federally Enforceable Through Title V Permit
26. Source testing to determine NOx and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The owner or operator shall provide source test information annually regarding the exhaust gas NOx and CO concentration corrected to 15% O2 (dry). EPA Methods 7E or 20 shall be used for NOx emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. [40 CFR 60.8(a), 40 CFR 60.335(b) and District Rule 4703, 5.1, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
28. Performance tests for the emissions of CO shall be conducted and results reported in accordance with the test methods set forth in 40 CFR 60.8 and 40 CFR 60, Appendix A. The performance tests for the emissions of CO shall be conducted using EPA Methods 1 through 4 and 10. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
29. The owner or operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703 (as amended 9/20/07), 5.1.1 and 6.4.6. [40 CFR 60.332(a) and (b) and District Rule 4703, 5.1.1 and 6.4.6] Federally Enforceable Through Title V Permit
30. The operator shall perform source testing for PM10 concentration and emission rate once per permit term using EPA Method 5. [40 CFR 60.8 (b) and (c)] Federally Enforceable Through Title V Permit
31. Audits of continuous emission monitoring system shall be conducted in accordance with EPA guidelines, witnessed at the District's discretion, and reports shall be submitted to the District within 60 days of such an audit. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
32. The Relative Accuracy Audit shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
33. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.1.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
34. Continuous emission monitoring system for NOx as NO2 and continuous monitoring system for CO & CO2 shall serve each CGT flue gas stream, shall conform to SJVUAPCD Rule 1080 specifications, shall meet EPA monitoring performance specifications, & shall be operational whenever the turbine is in operation. [District Rule 1080 and PSD SJ 85-09, X.D.1 and .2] Federally Enforceable Through Title V Permit
35. The continuous NOx and O2 monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
36. All continuous emissions monitoring systems shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60, Appendix B and 40 CFR 52, Appendix E. CEM ppm and lb/hr shall be calculated as a three-hour and a 1-hour average. [District Rule 1080 and PSD SJ 85-09 X.D.2] Federally Enforceable Through Title V Permit
37. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NOx, EPA Test Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O2, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] 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.

38. Each 1-hour period in a 1, 2 or 3-hour average will commence on the hour. The 3-hour average will be compiled from the three most recent 1-hour periods. The 2-hour average will be compiled from the two most recent 1-hour periods. [District Rule 1080] Federally Enforceable Through Title V Permit
39. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
40. Operator shall operate and maintain in calibration a system which continuously measures and records the following: control system operating parameters, elapsed time of operation, the exhaust gas NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> concentration . [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
41. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, tuning start-up, or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
42. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
43. Daily records of NO<sub>2</sub> and CO emission calculations during days of gas turbine startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1080] Federally Enforceable Through Title V Permit
44. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
45. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the following: the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(b); District Rules 2520, 9.4.2 and 4703, 6.2.6; PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
46. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.23] Federally Enforceable Through Title V Permit
47. The operator performing start-up or shutdown of this unit shall keep records of the duration of start-up or shutdown. [District Rule 4703, 6.2.8] Federally Enforceable Through Title V Permit
48. APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
49. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
50. Each exhaust stack shall be equipped with permanent stack sampling provisions consistent with District Rule 1081, EPA reference Methods 5 and 8 and OSHA requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
51. Each CGT shall have a fuel consumption monitor/recorder. [District Rule 2201 and PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
52. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Sycamore Cogeneration Company. [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.

53. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and carbon monoxide (CO) flue gas concentrations corrected to 15% O<sub>2</sub>, dry and CGT fuel sulfur content shall be maintained and shall be reported as described by District Rule 1080 and upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
54. Operator shall submit a quarterly report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
55. Quarterly continuous emission monitoring system reports shall be submitted to the District, EPA and CEC, as required by EPA regulations as specified in CFR Title 40, Part 58, Appendix B and Part 60 Appendix B. [District Rule 1080 and PSD SJ 85-09, X.D.5] Federally Enforceable Through Title V Permit
56. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO and EPA. The report is due on the 30th day following the end of the calendar quarter and shall include the following: A. time intervals, data and magnitude of excess emissions (computed in accordance with 40 CFR 60.13(h)), nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard. [40 CFR 60.334 (j)(5); District Rule 1080, 8.0 and PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
57. The written report for each calendar quarter shall also include the following: C. 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; D. a negative declaration when no excess emissions occurred. Excess emissions shall be defined as any 3-hour period during which the average emissions for CO, as measured by the CEM system, exceeds the emission limit set forth in PSD SJ 85-09, X.E. [District Rule 1080, 8.0; PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
58. A violation of NO<sub>x</sub> emission standards indicated by the NO<sub>x</sub> CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
59. The APCO shall be notified no later than one hour after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rules 1080, 10.0 and 1100, 6.1; PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
60. The Regional Administrator shall be notified by telephone within 48 hours 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 emissions limit stated in this permit. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
61. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions of this permit, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
62. CGT shall be fired on natural gas only. There shall be no provisions for oil firing. Natural gas used as fuel shall be pipeline quality with sulfur content of 0.3 gr/100 scf or less (0.001% sulfur by weight). [District Rule 2201; Kern County Rule 407] Federally Enforceable Through Title V Permit
63. The HHV and LHV of the gaseous fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
64. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
65. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3246, D4468 or D6667. [40 CFR 60.335(b)(10)] 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.

66. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested in accordance with the requirements of 40 CFR 60.334 (h) and 40 CFR 60.334(i). [40 CFR 60.334 (h) and 40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
67. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
68. The owner and operator of the proposed project shall construct and operate the proposed 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 SJ 85-09] Federally Enforceable Through Title V Permit
69. The cogeneration facility is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 CFR 60). The owner or operator shall meet all applicable requirements of Subparts A and GG of this regulation. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
70. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726-0244; and d) the California Energy Commission, 1516 Ninth Street, Sacramento, CA, 95814-5512. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
71. Compliance with permit conditions in the Title V permit shall be deemed compliance with the Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a), and (b); 60.333 (a); 60.334 (b), (c), (h), (i) and (j)(5); and 60.335 (b). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
73. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

# *San Joaquin Valley*

## *Air Pollution Control District*

**PERMIT UNIT:** S-511-2-20

**EXPIRATION DATE:** 11/30/2020

**SECTION:** 31 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (SYCAMORE UNIT #2)

### **PERMIT UNIT REQUIREMENTS**

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1. Excess emissions indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
2. The CGT combustors shall be a dry low NOx design capable of achieving 3 ppm or lower at 15% O2. [PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.015% by volume, 150 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a) and Kern County Rule 407] Federally Enforceable Through Title V Permit
4. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO2. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emission rates from CGT shall not exceed any of the following: PM10 - 5.0 lb/hr, SOx (as SO2) - 0.9 lb/hr, or VOC - 2.5 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emission rates from CGT shall not exceed any of the following: PM10 - 120.0 lb/day, SOx (as SO2) - 21.6 lb/day, NOx (as NO2) - 552.8 lb/day, VOC - 60.0 lb/day, or CO - 1056.0 lb/day. [District Rule 2201 and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
7. Emission rates from CGT, except during startup, shutdown, tuning start-up, and/or reduced load periods, shall not exceed any of the following: NOx (as NO2) - 3 ppmvd @ 15% O2, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O2, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703, 5.1.2 & 5.2; and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
8. NO2 and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
9. During startup, shutdown, and tuning start-up, emissions shall not exceed any of the following: 140.0 lb/hr of NOx on a 2-hr avg, 140 lb/hr of CO on a 2-hr avg, or 200 lb/hr of CO on a 1-hr avg. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Annual NOx emissions (as NO2) from all four CTG's (S-511-1, S-511-2, S-511-3, and S-511-4) calculated on a twelve month rolling basis shall not exceed 271,200 lb NOx / yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



11. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.29 and 3.26] Federally Enforceable Through Title V Permit
12. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CGT is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
13. The duration of each startup or each shut down time shall not exceed two hours. Startup and shutdown emissions shall be counted toward all applicable emission limits. [District Rule 4703, 5.3.1] Federally Enforceable Through Title V Permit
14. Operations during periods of startup, shutdown, and tuning startup shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx emissions in excess of the level of the emission limit shown in this permit during periods of startup and shutdown be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)] Federally Enforceable Through Title V Permit
15. Each CGT shall have a maximum heat input rate of 1020 MMBTU/hr on an LHV basis. Firing rate can be increased upon District witnessed emission sampling demonstration that compliance with emission sampling limits can be achieved at higher fuel rates. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Permit unit shall include one unfired heat recovery steam generator (HRSG) for gas turbine engine assembly with rated steam output of 450,000 lb/hr at 80% quality steam production. [District Rule 2201] Federally Enforceable Through Title V Permit
17. CGT may exhaust either through unfired 450,000 lb/hr heat recovery steam generator or through bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
18. When operating in cogeneration mode, exhaust gas ducting from CGT's through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Bypass stack valve preceding each HRSG shall be designed to be gas-tight to the atmosphere when exhaust is discharged through HRSG and shall be designed to be gas-tight to the HRSG when exhaust is discharged through the bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
20. At such times as specified by the USEPA, permittee shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for CO on the exhaust stack gases and furnish the District, the California ARB and the USEPA a written report of the results of such tests. All performance tests shall be conducted on an annual basis and at the maximum operating capacity of the emissions unit being tested. Upon written request from permittee, and adequate justification, USEPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 85- 09] Federally Enforceable Through Title V Permit
21. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
22. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of USEPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from the USEPA. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
23. Annual compliance tests shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

24. Operator shall conform with the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
25. For performance test purposes, sampling ports, platforms, and access shall be provided by the facility on the emission unit exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 85-09] Federally Enforceable Through Title V Permit
26. Source testing to determine NOx and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The owner or operator shall provide source test information annually regarding the exhaust gas NOx and CO concentration corrected to 15% O2 (dry). EPA Methods 7E or 20 shall be used for NOx emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. [40 CFR 60.8(a), 40 CFR 60.335(b) and District Rule 4703, 5.1, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
28. Performance tests for the emissions of CO shall be conducted and results reported in accordance with the test methods set forth in 40 CFR 60.8 and 40 CFR 60, Appendix A. The performance tests for the emissions of CO shall be conducted using EPA Methods 1 through 4 and 10. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
29. The owner or operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703 (as amended 9/20/07), 5.1.1 and 6.4.6. [40 CFR 60.332(a) and (b) and District Rule 4703, 5.1.1 and 6.4.6] Federally Enforceable Through Title V Permit
30. The operator shall perform source testing for PM10 concentration and emission rate once per permit term using EPA Method 5. [40 CFR 60.8 (b) and (c)] Federally Enforceable Through Title V Permit
31. Audits of continuous emission monitoring system shall be conducted in accordance with EPA guidelines, witnessed at the District's discretion, and reports shall be submitted to the District within 60 days of such an audit. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
32. The Relative Accuracy Audit shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
33. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.1.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
34. Continuous emission monitoring system for NOx as NO2 and continuous monitoring system for CO & CO2 shall serve each CGT flue gas stream, shall conform to SJVUAPCD Rule 1080 specifications, shall meet EPA monitoring performance specifications, & shall be operational whenever the turbine is in operation. [District Rule 1080 and PSD SJ 85-09, X.D.1 and .2] Federally Enforceable Through Title V Permit
35. The continuous NOx and O2 monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
36. All continuous emissions monitoring systems shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60, Appendix B and 40 CFR 52, Appendix E. CEM ppm and lb/hr shall be calculated as a three-hour and a 1-hour average. [District Rule 1080 and PSD SJ 85-09 X.D.2] Federally Enforceable Through Title V Permit
37. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NOx, EPA Test Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O2, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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38. Each 1-hour period in a 1, 2 or 3-hour average will commence on the hour. The 3-hour average will be compiled from the three most recent 1-hour periods. The 2-hour average will be compiled from the two most recent 1-hour periods. [District Rule 1080] Federally Enforceable Through Title V Permit
39. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
40. Operator shall operate and maintain in calibration a system which continuously measures and records the following: control system operating parameters, elapsed time of operation, the exhaust gas NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> concentration. [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
41. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, tuning start-up, or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
42. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
43. Daily records of NO<sub>2</sub> and CO emission calculations during days of gas turbine startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1080] Federally Enforceable Through Title V Permit
44. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
45. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the following: the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(b); District Rules 2520, 9.4.2 and 4703, 6.2.6; PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
46. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.23] Federally Enforceable Through Title V Permit
47. The operator performing start-up or shutdown of this unit shall keep records of the duration of start-up or shutdown. [District Rule 4703, 6.2.8] Federally Enforceable Through Title V Permit
48. APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
49. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
50. When CGT exhausts to bypass stack, the CEM probe located in the transition section shall be used to measure exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> or CO<sub>2</sub> concentration. [District Rule 2201] Federally Enforceable Through Title V Permit
51. Each exhaust stack shall be equipped with permanent stack sampling provisions consistent with District Rule 1081, EPA reference Methods 5 and 8 and OSHA requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
52. Each CGT shall have a fuel consumption monitor/recorder. [District NSR Rule and PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
53. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Sycamore Cogeneration Company. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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54. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and carbon monoxide (CO) flue gas concentrations corrected to 15% O<sub>2</sub>, dry and CGT fuel sulfur content shall be maintained and shall be reported as described by District Rule 1080 and upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
55. Operator shall submit a quarterly report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
56. Quarterly continuous emission monitoring system reports shall be submitted to the District, EPA and CEC, as required by EPA regulations as specified in CFR Title 40, Part 58, Appendix B and Part 60 Appendix B. [District Rule 1080 and PSD SJ 85-09, X.D.5] Federally Enforceable Through Title V Permit
57. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO and EPA. The report is due on the 30th day following the end of the calendar quarter and shall include the following: A. time intervals, data and magnitude of excess emissions (computed in accordance with 40 CFR 60.13(h)), nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard. [40 CFR 60.334 (j)(5); District Rule 1080, 8.0 and PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
58. The written report for each calendar quarter shall also include the following: C. 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; D. a negative declaration when no excess emissions occurred. Excess emissions shall be defined as any 3-hour period during which the average emissions for CO, as measured by the CEM system, exceeds the emission limit set forth in PSD SJ 85-09, X.E. [District Rule 1080, 8.0; PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
59. A violation of NO<sub>x</sub> emission standards indicated by the NO<sub>x</sub> CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
60. The APCO shall be notified no later than one hour after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rules 1080, 10.0 and 1100, 6.1; PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
61. The Regional Administrator shall be notified by telephone within 48 hours 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 emissions limit stated in this permit. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
62. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions of this permit, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
63. CGT shall be fired on natural gas only. There shall be no provisions for oil firing. Natural gas used as fuel shall be pipeline quality with sulfur content of 0.3 gr/100 scf or less (0.001% sulfur by weight). [District Rule 2201; Kern County Rule 407] Federally Enforceable Through Title V Permit
64. The HHV and LHV of the gaseous fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
65. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
66. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3246, D4468 or D6667. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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67. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested in accordance with the requirements of 40 CFR 60.334 (h) and 40 CFR 60.334(i). [40 CFR 60.334 (h) and 40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
68. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
69. The owner and operator of the proposed project shall construct and operate the proposed 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 SJ 85-09] Federally Enforceable Through Title V Permit
70. The cogeneration facility is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 CFR 60). The owner or operator shall meet all applicable requirements of Subparts A and GG of this regulation. [PSD SJ 85- 09] Federally Enforceable Through Title V Permit
71. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726-0244; and d) the California Energy Commission, 1516 Ninth Street, Sacramento, CA, 95814-5512. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit shall be deem compliance with the Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
73. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a), and (b); 60.333 (a); 60.334 (b), (c), (h), (i) and (j)(5); and 60.335 (b). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
74. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

# *San Joaquin Valley*

## *Air Pollution Control District*

**PERMIT UNIT:** S-511-3-20

**EXPIRATION DATE:** 11/30/2020

**SECTION:** 31 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (SYCAMORE UNIT #3)

### **PERMIT UNIT REQUIREMENTS**

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1. Excess emissions indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
2. The CGT combustors shall be a dry low NOx design capable of achieving 3 ppm or lower at 15% O2. [PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.015% by volume, 150 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a) and Kern County Rule 407] Federally Enforceable Through Title V Permit
4. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO2. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emission rates from CGT shall not exceed any of the following: PM10 - 5.0 lb/hr, SOx (as SO2) - 0.9 lb/hr, or VOC - 2.5 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emission rates from CGT shall not exceed any of the following: PM10 - 120.0 lb/day, SOx (as SO2) - 21.6 lb/day, NOx (as NO2) - 552.8 lb/day, VOC - 60.0 lb/day, or CO - 1056.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from CGT, except during startup, shutdown, tuning start-up, and/or reduced load periods, shall not exceed any of the following: NOx (as NO2) - 3 ppmvd @ 15% O2, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O2, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703, 5.1.2 & 5.2; and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
8. During startup, shutdown, and tuning start-up, emissions shall not exceed any of the following: 140.0 lb/hr of NOx on a 2-hr avg, 140 lb/hr of CO on a 2-hr avg, or 200 lb/hr of CO on a 1-hr avg. [District Rule 2201] Federally Enforceable Through Title V Permit
9. NO2 and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
10. Annual NOx emissions (as NO2) from all four CTG's (S-511-1, S-511-2, S-511-3, and S-511-4) calculated on a twelve month rolling basis shall not exceed 271,200 lb NOx / yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.29 and 3.26] Federally Enforceable Through Title V Permit
12. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CGT is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
13. The duration of each startup or each shut down time shall not exceed two hours. Startup and shutdown emissions shall be counted toward all applicable emission limits. [District Rule 4703, 5.3.1] Federally Enforceable Through Title V Permit
14. Operations during periods of startup, shutdown, and tuning startup shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx emissions in excess of the level of the emission limit shown in this permit during periods of startup and shutdown be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)] Federally Enforceable Through Title V Permit
15. Each CGT shall have a maximum heat input rate of 1020 MMBTU/hr on an LHV basis. Firing rate can be increased upon District witnessed emission sampling demonstration that compliance with emission sampling limits can be achieved at higher fuel rates. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Permit unit shall include one unfired heat recovery steam generator (HRSG) for gas turbine engine assembly with rated steam output of 450,000 lb/hr at 80% quality steam production. [District Rule 2201] Federally Enforceable Through Title V Permit
17. CGT may exhaust either through unfired 450,000 lb/hr heat recovery steam generator or through bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
18. When operating in cogeneration mode, exhaust gas ducting from CGT's through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit
19. When CGT exhausts to bypass stack, the CEM probe located in the transition section shall be used to measure exhaust gas NOx, CO and O2 or CO2 concentration. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Bypass stack valve preceding each HRSG shall be designed to be gas-tight to the atmosphere when exhaust is discharged through HRSG and shall be designed to be gas-tight to the HRSG when exhaust is discharged through the bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
21. At such times as specified by the USEPA, permittee shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for CO on the exhaust stack gases and furnish the District, the California ARB and the USEPA a written report of the results of such tests. All performance tests shall be conducted on an annual basis and at the maximum operating capacity of the emissions unit being tested. Upon written request from permittee, and adequate justification, USEPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 85- 09] Federally Enforceable Through Title V Permit
22. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
23. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of USEPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from the USEPA. [PSD SJ 85-09] 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.

24. Annual compliance tests shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1081] Federally Enforceable Through Title V Permit
25. Operator shall conform with the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
26. For performance test purposes, sampling ports, platforms, and access shall be provided by the facility on the emission unit exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 85-09] Federally Enforceable Through Title V Permit
27. Source testing to determine NO<sub>x</sub> and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
28. The owner or operator shall provide source test information annually regarding the exhaust gas NO<sub>x</sub> and CO concentration corrected to 15% O<sub>2</sub> (dry). EPA Methods 7E or 20 shall be used for NO<sub>x</sub> emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. [40 CFR 60.8(a), 40 CFR 60.335(b) and District Rule 4703, 5.1, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
29. Performance tests for the emissions of CO shall be conducted and results reported in accordance with the test methods set forth in 40 CFR 60.8 and 40 CFR 60, Appendix A. The performance tests for the emissions of CO shall be conducted using EPA Methods 1 through 4 and 10. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
30. The owner or operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703 (as amended 9/20/07), 5.1.1 and 6.4.6. [40 CFR 60.332(a) and (b) and District Rule 4703, 5.1.1 and 6.4.6] Federally Enforceable Through Title V Permit
31. The operator shall perform source testing for PM<sub>10</sub> concentration and emission rate once per permit term using EPA Method 5. [40 CFR 60.8 (b) and (c)] Federally Enforceable Through Title V Permit
32. Audits of continuous emission monitoring system shall be conducted in accordance with EPA guidelines, witnessed at the District's discretion, and reports shall be submitted to the District within 60 days of such an audit. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
33. The Relative Accuracy Audit shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
34. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.1.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
35. Continuous emission monitoring system for NO<sub>x</sub> as NO<sub>2</sub> and continuous monitoring system for CO & CO<sub>2</sub> shall serve each CGT flue gas stream, shall conform to SJVUAPCD Rule 1080 specifications, shall meet EPA monitoring performance specifications, & shall be operational whenever the turbine is in operation. [District Rule 1080 and PSD SJ 85-09, X.D.1 and .2] Federally Enforceable Through Title V Permit
36. The continuous NO<sub>x</sub> and O<sub>2</sub> monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
37. All continuous emissions monitoring systems shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60, Appendix B and 40 CFR 52, Appendix E. CEM ppm and lb/hr shall be calculated as a three-hour and a 1-hour average. [District Rule 1080 and PSD SJ 85-09 X.D.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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38. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NO<sub>x</sub>, EPA Test Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O<sub>2</sub>, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
39. Each 1-hour period in a 1, 2 or 3-hour average will commence on the hour. The 3-hour average will be compiled from the three most recent 1-hour periods. The 2-hour average will be compiled from the two most recent 1-hour periods. [District Rule 1080] Federally Enforceable Through Title V Permit
40. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
41. Operator shall operate and maintain in calibration a system which continuously measures and records the following: control system operating parameters, elapsed time of operation, the exhaust gas NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> concentration. [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
42. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, tuning start-up, or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
43. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
44. Daily records of NO<sub>2</sub> and CO emission calculations during days of gas turbine startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1080] Federally Enforceable Through Title V Permit
45. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
46. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the following: the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(b); District Rules 2520, 9.4.2 and 4703, 6.2.6; PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
47. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.23] Federally Enforceable Through Title V Permit
48. The operator performing start-up or shutdown of this unit shall keep records of the duration of start-up or shutdown. [District Rule 4703, 6.2.8] Federally Enforceable Through Title V Permit
49. APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
50. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
51. Each exhaust stack shall be equipped with permanent stack sampling provisions consistent with District Rule 1081, EPA reference Methods 5 and 8 and OSHA requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
52. Each CGT shall have a fuel consumption monitor/recorder. [District NSR Rule and PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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53. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Sycamore Cogeneration Company. [District Rule 2201] Federally Enforceable Through Title V Permit
54. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and carbon monoxide (CO) flue gas concentrations corrected to 15% O<sub>2</sub>, dry and CGT fuel sulfur content shall be maintained and shall be reported as described by District Rule 1080 and upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
55. Operator shall submit a quarterly report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
56. Quarterly continuous emission monitoring system reports shall be submitted to the District, EPA and CEC, as required by EPA regulations as specified in CFR Title 40, Part 58, Appendix B and Part 60 Appendix B. [District Rule 1080 and PSD SJ 85-09, X.D.5] Federally Enforceable Through Title V Permit
57. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO and EPA. The report is due on the 30th day following the end of the calendar quarter and shall include the following: A. time intervals, data and magnitude of excess emissions (computed in accordance with 40 CFR 60.13(h)), nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard. [40 CFR 60.334 (j)(5); District Rule 1080, 8.0 and PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
58. The written report for each calendar quarter shall also include the following: C. 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; D. a negative declaration when no excess emissions occurred. Excess emissions shall be defined as any 3-hour period during which the average emissions for CO, as measured by the CEM system, exceeds the emission limit set forth in PSD SJ 85-09, X.E. [District Rule 1080, 8.0; PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
59. A violation of NO<sub>x</sub> emission standards indicated by the NO<sub>x</sub> CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
60. The APCO shall be notified no later than one hour after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rules 1080, 10.0 and 1100, 6.1; PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
61. The Regional Administrator shall be notified by telephone within 48 hours 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 emissions limit stated in this permit. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
62. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions of this permit, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
63. CGT shall be fired on natural gas only. There shall be no provisions for oil firing. Natural gas used as fuel shall be pipeline quality with sulfur content of 0.3 gr/100 scf or less (0.001% sulfur by weight). [District Rule 2201; Kern County Rule 407] Federally Enforceable Through Title V Permit
64. The HHV and LHV of the gaseous fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
65. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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66. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3246, D4468 or D6667. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
67. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested in accordance with the requirements of 40 CFR 60.334 (h) and 40 CFR 60.334(i). [40 CFR 60.334 (h) and 40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
68. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
69. The owner and operator of the proposed project shall construct and operate the proposed 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 SJ 85-09] Federally Enforceable Through Title V Permit
70. The cogeneration facility is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 CFR 60). The owner or operator shall meet all applicable requirements of Subparts A and GG of this regulation. [PSD SJ 85- 09] Federally Enforceable Through Title V Permit
71. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726-0244; and d) the California Energy Commission, 1516 Ninth Street, Sacramento, CA, 95814-5512. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit shall be deemed compliance with the Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
73. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a), and (b); 60.333 (a); 60.334 (b), (c), (h), (i) and (j)(5); and 60.335 (b). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
74. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

# *San Joaquin Valley*

## *Air Pollution Control District*

**PERMIT UNIT:** S-511-4-19

**EXPIRATION DATE:** 11/30/2020

**SECTION:** 31 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (SYCAMORE UNIT #4)

### **PERMIT UNIT REQUIREMENTS**

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1. Excess emissions indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
2. The CGT combustors shall be a dry low NOx design capable of achieving 3 ppm or lower at 15% O2. [PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.015% by volume, 150 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a) and Kern County Rule 407] Federally Enforceable Through Title V Permit
4. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO2. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emission rates from CGT shall not exceed any of the following: PM10 - 5.0 lb/hr, SOx (as SO2) - 0.9 lb/hr, or VOC - 2.5 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emission rates from CGT shall not exceed any of the following: PM10 - 120.0 lb/day, SOx (as SO2) - 21.6 lb/day, NOx (as NO2) - 552.8 lb/day, VOC - 60.0 lb/day, or CO - 1056.0 lb/day. [District Rule 2201 and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
7. Emission rates from CGT, except during startup, shutdown, tuning start-up, and/or reduced load periods, shall not exceed any of the following: NOx (as NO2) - 3 ppmvd @ 15% O2, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O2, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703, 5.1.2 & 5.2; and PSD SJ 85-09, X.E] Federally Enforceable Through Title V Permit
8. NO2 and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
9. During startup, shutdown, and tuning start-up, emissions shall not exceed any of the following: 140.0 lb/hr of NOx on a 2-hr avg, 140 lb/hr of CO on a 2-hr avg, or 200 lb/hr of CO on a 1-hr avg. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Annual NOx emissions (as NO2) from all four CTG's (S-511-1, S-511-2, S-511-3, and S-511-4) calculated on a twelve month rolling basis shall not exceed 271,200 lb NOx / yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.29 and 3.26] Federally Enforceable Through Title V Permit
12. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CGT is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
13. The duration of each startup or each shut down time shall not exceed two hours. Startup and shutdown emissions shall be counted toward all applicable emission limits. [District Rule 4703, 5.3.1] Federally Enforceable Through Title V Permit
14. Operations during periods of startup, shutdown, and tuning startup shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx emissions in excess of the level of the emission limit shown in this permit during periods of startup and shutdown be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)] Federally Enforceable Through Title V Permit
15. Each CGT shall have a maximum heat input rate of 1020 MMBTU/hr on an LHV basis. Firing rate can be increased upon District witnessed emission sampling demonstration that compliance with emission sampling limits can be achieved at higher fuel rates. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Permit unit shall include one unfired heat recovery steam generator (HRSG) for gas turbine engine assembly with rated steam output of 450,000 lb/hr at 80% quality steam production. [District Rule 2201] Federally Enforceable Through Title V Permit
17. CGT may exhaust either through unfired 450,000 lb/hr heat recovery steam generator or through bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
18. When operating in cogeneration mode, exhaust gas ducting from CGT's through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Bypass stack valve preceding each HRSG shall be designed to be gas-tight to the atmosphere when exhaust is discharged through HRSG and shall be designed to be gas-tight to the HRSG when exhaust is discharged through the bypass stack. [District Rule 2201] Federally Enforceable Through Title V Permit
20. At such times as specified by the USEPA, permittee shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for CO on the exhaust stack gases and furnish the District, the California ARB and the USEPA a written report of the results of such tests. All performance tests shall be conducted on an annual basis and at the maximum operating capacity of the emissions unit being tested. Upon written request from permittee, and adequate justification, USEPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 85- 09] Federally Enforceable Through Title V Permit
21. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
22. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of USEPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from the USEPA. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
23. Annual compliance tests shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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24. Operator shall conform with the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
25. For performance test purposes, sampling ports, platforms, and access shall be provided by the facility on the emission unit exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 85-09] Federally Enforceable Through Title V Permit
26. Source testing to determine NOx and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The owner or operator shall provide source test information annually regarding the exhaust gas NOx and CO concentration corrected to 15% O2 (dry). EPA Methods 7E or 20 shall be used for NOx emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. [40 CFR 60.8(a), 40 CFR 60.335(b) and District Rule 4703, 5.1, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
28. Performance tests for the emissions of CO shall be conducted and results reported in accordance with the test methods set forth in 40 CFR 60.8 and 40 CFR 60, Appendix A. The performance tests for the emissions of CO shall be conducted using EPA Methods 1 through 4 and 10. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
29. The owner or operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703 (as amended 9/20/07), 5.1.1 and 6.4.6. [40 CFR 60.332(a) and (b) and District Rule 4703, 5.1.1 and 6.4.6] Federally Enforceable Through Title V Permit
30. The operator shall perform source testing for PM10 concentration and emission rate once per permit term using EPA Method 5. [40 CFR 60.8 (b) and (c)] Federally Enforceable Through Title V Permit
31. Audits of continuous emission monitoring system shall be conducted in accordance with EPA guidelines, witnessed at the District's discretion, and reports shall be submitted to the District within 60 days of such an audit. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
32. The Relative Accuracy Audit shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1080 and PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
33. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.1.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
34. Continuous emission monitoring system for NOx as NO2 and continuous monitoring system for CO & CO2 shall serve each CGT flue gas stream, shall conform to SJVUAPCD Rule 1080 specifications, shall meet EPA monitoring performance specifications, & shall be operational whenever the turbine is in operation. [District Rule 1080 and PSD SJ 85-09, X.D.1 and .2] Federally Enforceable Through Title V Permit
35. The continuous NOx and O2 monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
36. All continuous emissions monitoring systems shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60, Appendix B and 40 CFR 52, Appendix E. CEM ppm and lb/hr shall be calculated as a three-hour and a 1-hour average. [District Rule 1080 and PSD SJ 85-09 X.D.2] Federally Enforceable Through Title V Permit
37. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NOx, EPA Test Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O2, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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38. Each 1-hour period in a 1, 2 or 3-hour average will commence on the hour. The 3-hour average will be compiled from the three most recent 1-hour periods. The 2-hour average will be compiled from the two most recent 1-hour periods. [District Rule 1080] Federally Enforceable Through Title V Permit
39. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
40. Operator shall operate and maintain in calibration a system which continuously measures and records the following: control system operating parameters, elapsed time of operation, the exhaust gas NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> concentration. [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
41. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, tuning start-up, or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
42. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
43. Daily records of NO<sub>2</sub> and CO emission calculations during days of gas turbine startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1080] Federally Enforceable Through Title V Permit
44. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
45. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the following: the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(b); District Rules 2520, 9.4.2 and 4703, 6.2.6; PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
46. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.23] Federally Enforceable Through Title V Permit
47. The operator performing start-up or shutdown of this unit shall keep records of the duration of start-up or shutdown. [District Rule 4703, 6.2.8] Federally Enforceable Through Title V Permit
48. APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
49. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
50. Each exhaust stack shall be equipped with permanent stack sampling provisions consistent with District Rule 1081, EPA reference Methods 5 and 8 and OSHA requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
51. Each CGT shall have a fuel consumption monitor/recorder. [District Rule 2201 and PSD SJ 85-09, X.D.1] Federally Enforceable Through Title V Permit
52. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Sycamore Cogeneration Company. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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53. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and carbon monoxide (CO) flue gas concentrations corrected to 15% O<sub>2</sub>, dry and CGT fuel sulfur content shall be maintained and shall be reported as described by District Rule 1080 and upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
54. Operator shall submit a quarterly report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
55. Quarterly continuous emission monitoring system reports shall be submitted to the District, EPA and CEC, as required by EPA regulations as specified in CFR Title 40, Part 58, Appendix B and Part 60 Appendix B. [District Rule 1080 and PSD SJ 85-09, X.D.5] Federally Enforceable Through Title V Permit
56. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO and EPA. The report is due on the 30th day following the end of the calendar quarter and shall include the following: A. time intervals, data and magnitude of excess emissions (computed in accordance with 40 CFR 60.13(h)), nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard. [40 CFR 60.334 (j)(5); District Rule 1080, 8.0 and PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
57. The written report for each calendar quarter shall also include the following: C. 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; D. a negative declaration when no excess emissions occurred. Excess emissions shall be defined as any 3-hour period during which the average emissions for CO, as measured by the CEM system, exceeds the emission limit set forth in PSD SJ 85-09, X.E. [District Rule 1080, 8.0; PSD SJ 85-09, X.D.3 and X.D.5.a through e] Federally Enforceable Through Title V Permit
58. A violation of NO<sub>x</sub> emission standards indicated by the NO<sub>x</sub> CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
59. The APCO shall be notified no later than one hour after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rules 1080, 10.0 and 1100, 6.1; PSD SJ 85-09, X.D.3] Federally Enforceable Through Title V Permit
60. The Regional Administrator shall be notified by telephone within 48 hours 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 emissions limit stated in this permit. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
61. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions of this permit, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
62. CGT shall be fired on natural gas only. There shall be no provisions for oil firing. Natural gas used as fuel shall be pipeline quality with sulfur content of 0.3 gr/100 scf or less (0.001% sulfur by weight). [District Rule 2201; Kern County Rule 407] Federally Enforceable Through Title V Permit
63. The HHV and LHV of the gaseous fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
64. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
65. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3246, D4468 or D6667. [40 CFR 60.335(b)(10)] 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.



66. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested in accordance with the requirements of 40 CFR 60.334 (h) and 40 CFR 60.334(i). [40 CFR 60.334 (h) and 40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
67. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
68. The owner and operator of the proposed project shall construct and operate the proposed 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 SJ 85-09] Federally Enforceable Through Title V Permit
69. The cogeneration facility is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 CFR 60). The owner or operator shall meet all applicable requirements of Subparts A and GG of this regulation. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
70. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726-0244; and d) the California Energy Commission, 1516 Ninth Street, Sacramento, CA, 95814-5512. [PSD SJ 85-09] Federally Enforceable Through Title V Permit
71. Compliance with permit conditions in the Title V permit shall be deemed compliance with the Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a), and (b); 60.333 (a); 60.334 (b), (c), (h), (i) and (j)(5); and 60.335 (b). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
73. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

# *San Joaquin Valley*

## *Air Pollution Control District*

**PERMIT UNIT:** S-511-5-4

**EXPIRATION DATE:** 11/30/2020

**SECTION:** 30 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

250 BHP CUMMINS DIESEL-FIRED EMERGENCY IC ENGINE POWERING A 1500 GPM FIREWATER PUMP

### **PERMIT UNIT REQUIREMENTS**

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1. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rule 4801] Federally Enforceable Through Title V Permit
2. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4] Federally Enforceable Through Title V Permit
3. 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, 4.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
4. Permittee shall properly operate and maintain engine and monitor the operational characteristics of the engine as recommended by the engine manufacturer. [District Rule 4702, 5.7.2 and 5.7.3] Federally Enforceable Through Title V Permit
5. 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, 3.15] Federally Enforceable Through Title V Permit
6. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, and the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. The operator shall maintain copies of all fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. 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, 6.2.2] Federally Enforceable Through Title V Permit

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

*San Joaquin Valley  
Air Pollution Control District*

**PERMIT UNIT:** S-511-6-3

**EXPIRATION DATE:** 11/30/2020

**SECTION:** 32 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

CONFINED ABRASIVE BLASTING OPERATION (ABRASIVE BLASTING CABINET) WITH 100 LB CLEMCO INDUSTRIES (SILVERADO) BLASTING POT SERVED BY A DUST COLLECTOR

**PERMIT UNIT REQUIREMENTS**

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1. The abrasive blasting shall be carried out in a manner to prevent any nuisances. [District Rule 4102]
2. Abrasive blasting operations conducted within the blasting cabinet / room 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]
3. All abrasive blasting shall be conducted in accordance with California Code of Regulations Title 17, Subchapter 6, Sections 92000 through 92540. [CCR]

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

# *San Joaquin Valley Air Pollution Control District*

**PERMIT UNIT:** S-511-7-3

**EXPIRATION DATE:** 11/30/2020

**SECTION:** NE31 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

TRANSPORTABLE TIER-3 CERTIFIED DIESEL-FIRED IC ENGINE UP TO 532 HP POWERING AN ELECTRICAL GENERATOR

## **PERMIT UNIT REQUIREMENTS**

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1. Permittee shall provide written notification to the District within 48 hours of operating an IC engine under this permit (if unit is located onsite longer than 24 hours). Such notification shall include the date the engine was brought onsite, the manufacturer, model number, maximum rated horsepower, and emissions information that documents that the engine meets the emission limits and requirements specified in the permit. [District Rule 1070] Federally Enforceable Through Title V Permit
2. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO-approved alternative. [District Rules 2201 and 4702, 5.7.4] Federally Enforceable Through Title V Permit
3. The engine shall not operate unless all four GTEs (S-511-1, -2, -3, -4) are shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall properly operate and maintain engine and monitor the operational characteristics of the engine as recommended by the engine manufacturer. [District Rule 4702, 5.7.2 and 5.7.3] Federally Enforceable Through Title V Permit
5. 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]
6. Operation of IC engine shall not exceed 200 hours/yr without prior District approval through issuance of an Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
7. NOx emissions (referenced as NO2) shall not exceed 2.3 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC emissions (referenced as methane) shall not exceed 0.16 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
9. CO emissions shall not exceed 0.6 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The PM10 emissions rate from the engine shall not exceed 0.12 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
11. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
12. The operator shall maintain records of the type of fuel used and cumulative hours of operation on a 12 month rolling average. These records shall be updated at least monthly. [District Rules 2201 and 4702, 6.2.1] Federally Enforceable Through Title V Permit
13. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 4702, 6.2.2] Federally Enforceable Through Title V Permit

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

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# ATTACHMENT C

Detailed Summary List of Facility Permits

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# Detailed Facility Report

For Facility=511

Sorted by Facility Name and Permit Number

<b>SYCAMORE COGENERATION FACILITY</b>		FAC #	<b>S 511</b>	TYPE:	<b>TitleV</b>	EXPIRE ON:	11/30/2020
<b>HEAVY OIL CENTRAL</b>		STATUS:	<b>A</b>	TOXIC ID:	<b>50246</b>	AREA:	82 /
<b>1546 CHINA GRADE LOOP</b>		TELEPHONE:				INSP. DATE:	08/22
<b>BAKERSFIELD, CA 93308</b>							

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-511-1-19	75 MW	3020-08A G	1	12,254.00	12,254.00	A	75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (SYCAMORE UNIT #1)
S-511-2-20	75,000 kw	3020-08A G	1	12,254.00	12,254.00	A	75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (SYCAMORE UNIT #2)
S-511-3-20	75,000 kW	3020-08A G	1	12,254.00	12,254.00	A	75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (SYCAMORE UNIT #3)
S-511-4-19	75,000 kW	3020-08A G	1	12,254.00	12,254.00	A	75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (SYCAMORE UNIT #4)
S-511-5-4	250 bhp IC engine	3020-10 C	1	290.00	290.00	A	250 BHP CUMMINS DIESEL-FIRED EMERGENCY IC ENGINE POWERING A 1500 GPM FIREWATER PUMP
S-511-6-3	Miscellaneous	3020-06	1	128.00	128.00	A	CONFINED ABRASIVE BLASTING OPERATION (ABRASIVE BLASTING CABINET) WITH 100 LB CLEMCO INDUSTRIES (SILVERADO) BLASTING POT SERVED BY A DUST COLLECTOR
S-511-7-3	532 bhp IC engine	3020-10 D	1	577.00	577.00	A	TRANSPORTABLE TIER-3 CERTIFIED DIESEL-FIRED IC ENGINE UP TO 532 HP POWERING AN ELECTRICAL GENERATOR

Number of Facilities Reported: 1