

May 14, 2021

Mr. Richard Smith
Modesto Irrigation District
PO Box 4060
Modesto, CA 95352

Re: Notice of Preliminary Decision – Title V Permit Renewal
Facility Number: N-2052
Project Number: N-1201262

Dear Mr. Smith:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Modesto Irrigation District at 639 S McClure Rd, Modesto, California.

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

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

Sincerely,



Brian Clements
Director of Permit Services

Enclosures

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

Samir Sheikh
Executive Director/Air Pollution Control Officer

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

**Proposed Title V Permit Renewal Evaluation
Modesto Irrigation District
N-2052**

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TITLE V PERMIT RENEWAL EVALUATION

Power Generation Facility

Engineer: Gurpreet Brar
Date: May 14, 2021

Facility Number: N-2052
Facility Name: Modesto Irrigation District
Mailing Address: PO Box 4060
Modesto, CA 95352

Contact Name: Richard Smith
Phone: (209) 526-7616

Responsible Official: Richard Smith
Title: Generation Manager

Project #: N-1201262
Deemed Complete: March 31, 2020

I. PROPOSAL

Modesto Irrigation District was issued their initial Title V permit in 2003. The permit was previously renewed in 2016. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit has been reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the issuance of the previously renewed Title V permit.

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

Modesto Irrigation District is located at 639 S McClure Rd in Modesto, 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 is requesting to use the following model general permit Templates:

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

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

V. SCOPE OF EPA AND PUBLIC REVIEW

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

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

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

Conditions 1 through 6, and 8 through 41 of the requirements for permit units N-2052-0-4.

VI. FEDERALLY ENFORCEABLE REQUIREMENTS

Rules Addressed by General Permit Template

A. Rules Updated or Evaluated

- 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)
- 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners (amended August 23, 2019)
- 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction (amended April 10, 2020)

B. Rules Not Updated

- District Rule 1100, Equipment Breakdown (amended December 17, 1992)
- District Rule 1160, Emission Statements (adopted November 18, 1992)
- District Rule 2010, Permits Required (adopted 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 (adopted December 17, 1992)
- District Rule 2070, Standards for Granting Applications (amended December 17, 1992)
- District Rule 2080, Conditional Approval (amended December 17, 1992)
- District Rule 4101, Visible Emissions (amended February 17, 2005)
- District Rule 8021, Construction, Demolition Excavation, Extraction, and Other Earthmoving Activities (amended August 19, 2004)

- District Rule 8031, Bulk Materials (amended August 19, 2004)
- District Rule 8041, Carryout and Trackout (amended August 19, 2004)
- District Rule 8051, Open Areas (amended August 19, 2004)
- District Rule 8061, Paved and Unpaved Roads (amended August 19, 2004)
- District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas (amended September 16, 2004)
- 40 CFR Part 61, Subpart M, National Emission Standards for Asbestos (amended July 20, 2004)

Rules Not Addressed by General Permit Template

A. Rules Updated or Evaluated

- District Rule 2201, New and Modified Stationary Source Review Rule (amended April 21, 2011 ⇒ amended August 15, 2019)
- 40 CFR Part 60 Subpart A, General Provisions (amended August 30, 2016)
- 40 CFR Part 60 Subpart KKKK, Standards of Performance for Stationary Combustion Turbines (amended October 7, 2020)
- 40 CFR Part 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (amended November 19, 2020)
- 40 CFR Part 64, Compliance Assurance Monitoring (adopted October 22, 1997)
- 40 CFR Part 68 Subpart G, Chemical Accident Prevention Provisions (amended December 19, 2019)

B. Rules Removed

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

C. Rules Added

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

D. Rules Not Updated

- District Rule 1070, Inspections (amended December 17, 1992)
- District Rule 1080, Stack Monitoring (amended December 17, 1992)
- District Rule 1081, Source Sampling (amended December 16, 1993)
- District Rule 2410, Prevention of Significant Deterioration, (adopted June 16, 2011)
- District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)
- District Rule 4703, Stationary Gas Turbines (amended September 20, 2007)
- District Rule 4801, Sulfur Compounds (amended December 17, 1992)
- 40 CFR Part 60 Subpart GG, Standards of Performance for Stationary Gas Turbines (amended February 27, 2014)
- Federal NSR/PSD Permit SJ 79-16

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 Updated

No rules were updated.

B. Rules Added

No rules were added.

C. Rules Not Updated

1. District Rule 4102, Nuisance

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

The following condition is based on this rule and is therefore not federally enforceable through Title V:

| Permit Unit | Permit Condition |
|-------------|------------------|
| N-2052-0-4 | 42 |

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 adopted since the issuance of the last renewed Title V permit.

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

District Rule 2201 has been amended since this Title V permit was last renewed. 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. The updated requirements of this rule are therefore not applicable at this time.

2. District Rule 2520 – Federally Mandated Operating Permits

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.

3. District Rule 4601 – Architectural Coatings

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

4. 40 CFR Part 60, Subpart A – General Provisions

Section 60.8(f) of Subpart A has been revised to require the reporting of specific emissions test data in test reports regardless of whether the report is submitted electronically or in paper format. The data elements will provide clarity and more appropriately define and limit the extent of elements reported for each test method included in a test report. The modifications to this section ensure that emissions test reporting includes all data necessary to assess and assure the quality of the reported emissions data and that the reported information appropriately describes and identifies the specific unit covered by the emissions test report. Also, Section 60.17(g) is revised to add ASTM D6911-15 to the list of incorporations by reference.

The facility has a permit shield for 40 CFR 60.7(b), 60.8, and 60.13 as addressed by condition 60 on draft permits N-2052-1-11 and N-2052-2-12, and do not have any permit requirements for this subpart; therefore, the amendment to this subpart does not require any change to the permit conditions.

5. 40 CFR Part 60 Subpart KKKK, Standards of Performance for Stationary Combustion Turbines

Section 60.4305(a) states that stationary combustion turbines with a heat input at peak load equal to or greater than 10 MMBtu/hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005, are subject to this Subpart.

The turbines operated under permit units N-2052-1 and N-2052-2 were constructed prior to this date, and have not been modified or reconstructed after February 18, 2005. Therefore, Subpart KKKK is not applicable to these turbines. No further analysis is necessary.

6. 40 CFR Part 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

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

Section 63.6085(b) states, "A major source of HAP emissions is a contiguous site under common control that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site."

As seen in Appendix D below, the facility is not a major source as defined in Section 63.6085(b). Therefore, this subpart is not applicable and no further discussion is required.

7. 40 CFR Part 64 – Compliance Assurance Monitoring

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

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

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

40 CFR Part 64 defines a control device as equipment, other than inherent process equipment, that is used to destroy or remove air pollutants prior to discharge to the atmosphere.

a. **N-2052-1-11: TURBINE/GENERATOR SET #1, 25.8 MW GENERAL ELECTRIC FRAME 5, MODEL PG 5361, NATURAL GAS/FUEL OIL #2 FIRED**

This permit unit has emission limits for NO_x, SO_x, PM₁₀, CO, and VOC. However, the turbine is not equipped with any add-on control equipment and is not subject to CAM requirements.

a. **N-2052-2-12: TURBINE/GENERATOR SET #2, 25.8 MW GENERAL ELECTRIC FRAME 5, MODEL PG 5361, NATURAL GAS/FUEL OIL #2 FIRED**

This permit unit has emission limits for NO_x, SO_x, PM₁₀, CO, and VOC. However, the turbine is not equipped with any add-on control equipment and is not subject to CAM requirements.

8. 40 CFR Part 68 – Chemical Accident Prevention Provisions

When the facility is subject to the requirements of 40 CFR Part 68, it should submit to the proper authority a Risk Management Plan per Subpart G when mandated by the regulation as stated in condition #43 on draft renewed facility-wide permit. Since the actual requirements of 40 CFR Part 68 were not placed on the facility-wide permit, the amendment to this subpart does not have any effect on current permit requirements and therefore will not be addressed in this evaluation.

9. 40 CFR Part 82 Subpart B – Servicing of Motor Vehicle Air Conditioners

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

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

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

The following condition on the draft renewed permit is a mechanism to ensure compliance with the requirements of this subpart:

| Renewed Permit | Permit Condition |
|----------------|------------------|
| N-2052-0-4 | 28 |

10. 40 CFR Part 82 Subpart F – Recycling and Emissions Reductions

The purpose of 40 CFR Part 82 Subpart F is to reduce emissions of class I and class II refrigerants and their substitutes to the lowest achievable level by maximizing the recapture and recycling of such refrigerants during the service, maintenance, repair, and disposal of appliances and restricting the sale of refrigerants consisting in whole or in part of a class I and class II ODS in accordance with Title VI of the Clean Air Act.

These regulations apply to any person servicing, maintaining, or repairing appliances. This subpart also applies to persons disposing of appliances, including small appliances and motor vehicle air conditioners. In addition, this subpart applies to refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturers of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, persons selling class I or class II refrigerants or offering class I or class II refrigerants for sale, and persons purchasing class I or class II refrigerants.

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

The following condition on the draft renewed permit is a mechanism to ensure compliance with the requirements of this subpart:

| Renewed Permit | Permit Condition |
|----------------|------------------|
| N-2052-0-4 | 29 |

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

Model General Permit Template SJV-UM-0-3

By submitting Model General Permit Template SJV-UM-0-3 qualification form, the applicant has requested that a permit shield be granted for all the applicable requirements identified by the template. Therefore, the permit shield as granted in Model General Permit Template is included as conditions 40 and 41 of the facility-wide requirements (N-2052-0-4).

B. Requirements not Addressed by Model General Permit Templates

The applicant has not requested any change to the permit shields for any requirements not addressed by model general permit templates.

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
- D. HAP Major Source Calculations

ATTACHMENT A

Draft Renewed Title V Operating Permit

San Joaquin Valley Air Pollution Control District

FACILITY: N-2052-0-4

EXPIRATION DATE: 09/30/2020

FACILITY-WIDE REQUIREMENTS

1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rules 1100 and 2410; and Stanislaus County Rule 110] 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 Rules 1100 and 2410; and Stanislaus County Rule 110] 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. 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. In the event of changes in control or ownership, District Rule 2410 shall be binding on new owners and operators. The applicant shall notify successor of the existence of District Rule 2410 and its conditions in writing and forward a copy to the District, California Air Resources Board, and EPA. [District Rules 2031 and 2410] Federally Enforceable Through Title V Permit
8. {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

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.

9. {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
10. {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
11. {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
12. {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
13. 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 Rules 2410 and 2520] Federally Enforceable Through Title V Permit
14. {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
15. {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
16. {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
17. {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
18. {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
19. 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 Rules 2410 and 2520] Federally Enforceable Through Title V Permit
20. 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 Rules 2410 and 2520] Federally Enforceable Through Title V Permit
21. 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 Rules 2410 and 2520] 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. 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 Rules 2410 and 2520] Federally Enforceable Through Title V Permit
23. {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
24. {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
25. {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
26. {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
27. {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
28. {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
29. {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
30. {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
31. {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
32. {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
33. {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
34. {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

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

35. {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
36. {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
37. {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
38. {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
39. {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
40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Stanislaus County Rules 110, 202, and 401. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. {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
42. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
43. When applicable to 40 CFR Part 68, a subject facility shall submit to the proper authority a Risk Management Plan when mandated by the regulation. [40 CFR Part 68] Federally Enforceable Through Title V Permit
44. On April 30, 2003, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin May 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
45. All correspondence as required by a permit condition based on District Rule 2410 shall be forwarded to: the District; Director, Air & Toxics Div. (Attn: A-3), EPA Region IX, 75 Hawthorne St. San Francisco, CA 94105; and Chief, Stationary Source Div., CARB, P.O. Box 2815, Sacramento, CA 95812. [District Rule 2410] Federally Enforceable Through Title V Permit

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

46. Compliance with permit conditions in the Title V permit shall be deemed in compliance with Federal NSR/PSD Permit SJ 79-16. 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.

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-2052-1-11

EXPIRATION DATE: 09/30/2020

EQUIPMENT DESCRIPTION:

ONE (1) GENERAL ELECTRIC MODEL MS-7000-1-B GAS TURBINE ENGINE (SERIAL # 281786) SERVING A 49.5 MW ELECTRICAL GENERATOR (UNIT #1)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in proper operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rules 2201 and 2410] Federally Enforceable Through Title V Permit
3. A selective catalytic reduction (SCR) system and an oxidation catalyst shall serve the gas turbine engine. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators or equivalent technology sufficient to limit the visible emissions from the lube oil vents to not exceed 5% opacity, except for a period not exceeding three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Natural gas or 15 ppmw sulfur diesel are the only fuels permitted for combustion in the turbine. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall be fired on natural gas as defined in 40 CFR 60.331(u) which has a total sulfur content of less than or equal to 1.0 gr/100 scf. [District Rule 4201; 40 CFR 60.333(b); and Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
7. Fuel consumption shall be limited to 794.6 MMBtu per hour. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The duration of all start-up and shutdown events shall not exceed 200 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The heat input to units N-2052-1 and N-2052-2 combined shall be limited to a total of 4,000,000 MMBtu/year when firing on natural gas and diesel during base load operation. The heat input to units N-2052-1 and N-2052-2 combined shall be limited to 2,000,000 MMBtu/year when firing on diesel during base load operation. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Except during start-up and shutdown periods, emissions from this unit shall not exceed any of the following limits when fired on natural gas: NO_x (as NO₂) - 8.64 lb/hr and 3.0 ppmvd @ 15% O₂; VOC (as CH₄) - 2.01 lb/hr and 2.0 ppmvd @ 15% O₂; CO - 26.29 lb/hr and 15.0 ppmvd @ 15% O₂; PM₁₀ - 7.5 lb/hr; or SO_x - 2.26 lb/hr. All emission concentration limits are based on 3-hour rolling averages. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Except during start-up and shutdown periods, emissions from this unit shall not exceed any of the following limits when fired on 15 ppmw sulfur diesel: NO_x (as NO₂) - 15.31 lb/hr and 5.0 ppmvd @ 15% O₂; VOC (as CH₄) - 2.14 lb/hr and 2.0 ppmvd @ 15% O₂; CO - 27.97 lb/hr and 15.0 ppmvd @ 15% O₂; PM₁₀ - 20.00 lb/hr; or SO_x - 1.19 lb/hr. All emission concentration limits are based on 3-hour rolling averages. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit
12. Except during start-up and shutdown periods, NO_x emissions from this unit shall not exceed the heat input weighted average of the applicable ppmvd or hourly limits when fired simultaneously on natural gas and 15 ppmw sulfur diesel, as calculated by the following equation: Weighted Average Limit = [(NO_x limit for gaseous fuel x heat input from gaseous fuel) + (NO_x limit for liquid fuel x heat input for liquid fuel)]/(heat input for gaseous fuel + heat input from liquid fuel). All emission concentration limits are based on 3-hour rolling averages. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The emissions during start-up and shutdown periods shall not exceed 40 lb NO_x (as NO₂)/hr and 100 lb CO/hr when firing on natural gas or diesel. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Start-up period is defined as the period of time during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. The start-up period shall not exceed two hours for each start-up. [District Rule 4703, 3.24] Federally Enforceable Through Title V Permit
15. Shutdown is defined as the period beginning with the initiation of the turbine shutdown sequence and ending with the cessation of the firing of the turbine. The shutdown period shall not exceed two hours for each shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
16. The ammonia emissions shall not exceed either of the following limits: 11.4 lb/hr or 10.0 ppmvd @ 15% O₂ based on a 24-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) Calculate ammonia slip utilizing the following equation: ammonia slip ppmvd @ 15% O₂ = $\left\{ \left[a - \left(b \times c / 1,000,000 \right) \right] \times \left(1,000,000 / b \right) \right\} \times \left(20.9 - 15.0 \right) / \left(20.9 - e \right) \times d$, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NO_x concentration across the catalyst, d = correction factor, and e = stack O₂ concentration (% vd). The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O₂. If this option is chosen, the permittee shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the permittee may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the permittee shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rule 4102]
18. Emission rates shall not exceed any of the following limits: NO_x (as NO₂) - 441.5 lb/day; VOC - 51.4 lb/day; CO - 887.4 lb/day; PM₁₀ - 480.0 lb/day; or SO_x (as SO₂) - 54.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emissions from units N-2052-1 and N-2052-2 combined shall not exceed any of the following limits: NO_x (as NO₂) - 76,282 lb/year; VOC - 11,302 lb/year, CO - 176,572 lb/year, PM₁₀ - 77,218 lb/year; or SO_x - 12,281 lb/year. All annual emission limits are based on twelve consecutive month rolling emissions totals. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Each 3-hour rolling average will be compiled from the three most recent one hour periods. Each 1-hour period shall commence on the hour. Each 1-hour period in a 24-hour average for ammonia slip will commence on the hour. The 24-hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Daily emissions will be compiled for a 24-hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total will commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals to determine compliance with annual emission limits will be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. Source testing to measure NO_x, CO, VOC, PM₁₀ and ammonia emissions shall be conducted at least once every twelve months. NO_x, CO, VOC and ammonia emissions shall be reported in ppmvd @ 15% O₂ and lb/hr, and PM₁₀ emissions shall be reported in lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Source testing to measure the start-up NO_x emission rate shall be conducted at least once every seven years. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit
25. Emission concentrations shall be measured using the following test methods: EPA Methods 7E or 20 for NO_x emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. [District Rule 4703, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
26. VOC emissions (referenced as methane) shall be determined using EPA method 18 or EPA method 25. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
27. PM₁₀ emissions shall be determined using EPA methods 201 and 202, EPA methods 201A and 202, EPA Method 5 or CARB Method 5 (total particulates). [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
28. Ammonia emissions shall be determined using BAAQMD method ST-1B. [District Rules 1081 and 4102] Federally Enforceable Through Title V Permit
29. The higher heating value and lower heating value of distillate fuels shall be determined using ASTM D240-87 or ASTM D2382-88. [District Rule 4703] Federally Enforceable Through Title V Permit
30. The higher heating value and lower heating value of gaseous fuels shall be determined using ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81. [District Rule 4703] Federally Enforceable Through Title V Permit
31. The owner or operator shall be required to conform to the sampling facilities and testing procedures described in District Rule 1081, 3.0, & 6.0 (as amended 12/16/93). [District Rule 1081, 3.0 and 6.0] Federally Enforceable Through Title V Permit
32. The District must be notified 30 days prior to any source testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
33. Source testing shall be witnessed or authorized by District personnel. Test results must be submitted to the District within 60 days of source testing. [District Rule 1081, 7.2 & 7.3] Federally Enforceable Through Title V Permit
34. EPA approved alternative source testing methods will be allowed, upon District approval, provided it does not result in a relaxation of emission limitations. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081 and 4001] Federally Enforceable Through Title V Permit
35. If the turbine is fired on noncertified diesel fuel, then the sulfur content of the liquid fuel being fired in the unit shall be determined using ASTM D 129-00, D 2622-98, D 4294-02, D 1266-98, D 5453-00 or D 1552-01. [District Rule 2520, 9.3.2; and 40 CFR 60.335(10)(i)] Federally Enforceable Through Title V Permit
36. If the turbine is not fired on certified 15 ppmw sulfur diesel fuel, the sulfur content shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(4)] Federally Enforceable Through Title V Permit
37. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the 15 ppmw sulfur content diesel fuel requirement shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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38. The sulfur content of natural gas shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. If sulfur content is less than 1.0 gr/100 scf for 8 consecutive weeks, then the Monitoring frequency shall be every six months. If any six month monitoring show an exceedance, weekly monitoring shall resume. [District Rule 2520, 9.3.2; and 40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
39. The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x, CO, and O₂ concentrations. The CEM shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rules 4703, 6.2.1; 2201, and 1080; and 40 CFR 60.334 (b)] Federally Enforceable Through Title V Permit
40. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
41. The NO_x, CO, and O₂ CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2, 3, and 4A or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit
42. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system and shall make CEM Data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
43. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
44. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
45. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The reports is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; 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; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5), 60.7(c), 60.7(d), and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
46. APCO or an authorized representative shall be allowed to inspect, as determined 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
47. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
48. Results of the CEMS shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of 40 CFR 60.13. [District Rule 4703, 5.1 & 6.4 and 40 CFR 60.13] 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.

49. In accordance with 40 CFR, Part 60, Appendix F, 5.1, cylinder gas audits (CGA) or relative accuracy audits (RAA) of continuous emission monitors shall be conducted quarterly, except during quarters in which a relative accuracy test audit (RATA) is performed. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
50. The owner/operator shall perform a RATA as specified by 40 CFR Part 60, Appendix F, 5.11, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
51. The permittee shall monitor and record the fuel flow rate, NO_x emission rate, CO emission rate, ammonia injection rate, exhaust temperature both prior to and after the SCR system, exhaust oxygen content and exhaust flow rate. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit
52. Owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local time start-up and stop time, total hours of operation, type and quantity of fuel used. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
53. The permittee shall maintain the following records: date and time, duration, and type of any start-up, shutdown, or malfunction; source testing, evaluations, calibrations, checks, adjustments, any period which a continuous monitoring system or device was inoperative, and maintenance of any continuous emission monitoring system or device. [District Rule 2201] Federally Enforceable Through Title V Permit
54. The facility's operating and alarm logs must be available at the time of inspection. [District Rule 2201] Federally Enforceable Through Title V Permit
55. Owner or operator shall keep the following records: (1) A record of the 12-month rolling combined NO_x, VOC, CO, PM₁₀, and SO_x emissions for units N-2052-1 and N-2052-2, in (lb/year). This record shall be updated on at least a monthly basis, (2) A record of the total combined annual heat input for units N-2052-1 and N-2052-2. This record shall be updated on at least a monthly basis, (3) A record of the combined annual heat input for units N-2052-1 and N-2052-2, when firing on diesel fuel. This record shall be updated on at least a monthly basis, and (4) A record of the annual total duration of all start-up and shutdown events for this turbine. [District Rule 2520] Federally Enforceable Through Title V Permit
56. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4703] Federally Enforceable Through Title V Permit
57. The requirements of the Acid Rain Program do not apply to this source because this is a simple combustion turbine that commenced commercial operation before November 15, 1990. A permit shield is granted from this requirement. [40 CFR 72.6(b)(1) and District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 407 (Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a)(1), (h)(3), (j), (j)(1)(iii), and (j)(5). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
60. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.13, and District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 8.0, and 11.0; 1081(as amended 12/16/93), Sections 3.0, 6.0, 7.1, 7.2, and 7.3; and 4201 (as amended 12/17/92). 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.

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-2052-2-12

EXPIRATION DATE: 09/30/2020

EQUIPMENT DESCRIPTION:

ONE (1) GENERAL ELECTRIC MODEL MS-7000-1-B GAS TURBINE ENGINE (SERIAL # 281905) SERVING A 49.5 MW ELECTRICAL GENERATOR (UNIT #2)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in proper operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rules 2201 and 2410] Federally Enforceable Through Title V Permit
3. A selective catalytic reduction (SCR) system and an oxidation catalyst shall serve the gas turbine engine. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators or equivalent technology sufficient to limit the visible emissions from the lube oil vents to not exceed 5% opacity, except for a period not exceeding three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Natural gas or 15 ppmw sulfur diesel are the only fuels permitted for combustion in the turbine. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall be fired on natural gas as defined in 40 CFR 60.331(u) which has a total sulfur content of less than or equal to 1.0 gr/100 scf. [District Rule 4201; 40 CFR 60.333(b); and Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
7. Fuel consumption shall be limited to 794.6 MMBtu per hour. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The duration of all start-up and shutdown events shall not exceed 200 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The heat input to units N-2052-1 and N-2052-2 combined shall be limited to a total of 4,000,000 MMBtu/year when firing on natural gas and diesel during base load operation. The heat input to units N-2052-1 and N-2052-2 combined shall be limited to 2,000,000 MMBtu/year when firing on diesel during base load operation. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Except during start-up and shutdown periods, emissions from this unit shall not exceed any of the following limits when fired on natural gas: NO_x (as NO₂) - 8.64 lb/hr and 3.0 ppmvd @ 15% O₂ ; VOC (as CH₄) - 2.01 lb/hr and 2.0 ppmvd @ 15% O₂; CO - 26.29 lb/hr and 15.0 ppmvd @ 15% O₂; PM₁₀ - 7.5 lb/hr; or SO_x - 2.26 lb/hr. All emission concentration limits are based on 3-hour rolling averages. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Except during start-up and shutdown periods, emissions from this unit shall not exceed any of the following limits when fired on 15 ppmw sulfur diesel: NO_x (as NO₂) - 15.31 lb/hr and 5.0 ppmvd @ 15% O₂ ; VOC (as CH₄) - 2.14 lb/hr and 2.0 ppmvd @ 15% O₂; CO - 27.97 lb/hr and 15.0 ppmvd @ 15% O₂; PM₁₀ - 20.00 lb/hr; or SO_x - 1.19 lb/hr. All emission concentration limits are based on 3-hour rolling averages. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit
12. Except during start-up and shutdown periods, NO_x emissions from this unit shall not exceed the heat input weighted average of the applicable ppmvd or hourly limits when fired simultaneously on natural gas and 15 ppmw sulfur diesel, as calculated by the following equation: Weighted Average Limit = [(NO_x limit for gaseous fuel x heat input from gaseous fuel) + (NO_x limit for liquid fuel x heat input for liquid fuel)]/(heat input for gaseous fuel + heat input from liquid fuel). All emission concentration limits are based on 3-hour rolling averages. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The emissions during start-up and shutdown periods shall not exceed 40 lb NO_x (as NO₂)/hr and 100 lb CO/hr when firing on natural gas or diesel. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Start-up period is defined as the period of time during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. The start-up period shall not exceed two hours for each start-up. [District Rule 4703, 3.24] Federally Enforceable Through Title V Permit
15. Shutdown is defined as the period beginning with the initiation of the turbine shutdown sequence and ending with the cessation of the firing of the turbine. The shutdown period shall not exceed two hours for each shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
16. The ammonia emissions shall not exceed either of the following limits: 11.4 lb/hr or 10.0 ppmvd @ 15% O₂ based on a 24-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) Calculate ammonia slip utilizing the following equation: ammonia slip ppmvd @ 15% O₂ = $\left\{ \left[a - \left(b \times c / 1,000,000 \right) \right] \times \left(1,000,000 / b \right) \right\} \times \left(20.9 - 15.0 \right) / \left(20.9 - e \right) \times d$, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NO_x concentration across the catalyst, d = correction factor, and e = stack O₂ concentration (% vd). The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O₂. If this option is chosen, the permittee shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the permittee may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the permittee shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rule 4102]
18. Emission rates shall not exceed any of the following limits: NO_x (as NO₂) - 441.5 lb/day; VOC - 51.4 lb/day; CO - 887.4 lb/day; PM₁₀ - 480.0 lb/day; or SO_x (as SO₂) - 54.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emissions from units N-2052-1 and N-2052-2 combined shall not exceed any of the following limits: NO_x (as NO₂) - 76,282 lb/year; VOC - 11,302 lb/year, CO - 176,572 lb/year, PM₁₀ - 77,218 lb/year; or SO_x - 12,281 lb/year. All annual emission limits are based on twelve consecutive month rolling emissions totals. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Each 3-hour rolling average will be compiled from the three most recent one hour periods. Each 1-hour period shall commence on the hour. Each 1-hour period in a 24-hour average for ammonia slip will commence on the hour. The 24-hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Daily emissions will be compiled for a 24-hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total will commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals to determine compliance with annual emission limits will be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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22. Source testing to measure NO_x, CO, VOC, PM₁₀ and ammonia emissions shall be conducted at least once every twelve months. NO_x, CO, VOC and ammonia emissions shall be reported in ppmvd @ 15% O₂ and lb/hr, and PM₁₀ emissions shall be reported in lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Source testing to measure the start-up NO_x emission rate shall be conducted at least once every seven years. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit
25. Emission concentrations shall be measured using the following test methods: EPA Methods 7E or 20 for NO_x emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. [District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Federally Enforceable Through Title V Permit
26. VOC emissions (referenced as methane) shall be determined using EPA method 18 or EPA method 25. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
27. PM₁₀ emissions shall be determined using EPA methods 201 and 202, EPA methods 201A and 202, EPA Method 5 or CARB Method 5 (total particulates). [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
28. Ammonia emissions shall be determined using BAAQMD method ST-1B. [District Rules 1081 and 4102] Federally Enforceable Through Title V Permit
29. The higher heating value and lower heating value of distillate fuels shall be determined using ASTM D240-87 or ASTM D2382-88. [District Rule 4703] Federally Enforceable Through Title V Permit
30. The higher heating value and lower heating value of gaseous fuels shall be determined using ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81. [District Rule 4703] Federally Enforceable Through Title V Permit
31. The owner or operator shall be required to conform to the sampling facilities and testing procedures described in District Rule 1081, 3.0, & 6.0 (as amended 12/16/93). [District Rule 1081, 3.0 & 6.0] Federally Enforceable Through Title V Permit
32. The District must be notified 30 days prior to any source testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
33. Source testing shall be witnessed or authorized by District personnel. Test results must be submitted to the District within 60 days of source testing. [District Rule 1081, 7.2 & 7.3] Federally Enforceable Through Title V Permit
34. EPA approved alternative source testing methods will be allowed, upon District approval, provided it does not result in a relaxation of emission limitations. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081 and 4001] Federally Enforceable Through Title V Permit
35. If the turbine is fired on noncertified diesel fuel, then the sulfur content of the liquid fuel being fired in the unit shall be determined using ASTM D 129-00, D 2622-98, D 4294-02, D 1266-98, D 5453-00 or D 1552-01. [District Rule 2520, 9.3.2; and 40 CFR 60.335(10)(i)] Federally Enforceable Through Title V Permit
36. If the turbine is not fired on certified 15 ppmw sulfur diesel fuel, the sulfur content shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(4)] Federally Enforceable Through Title V Permit
37. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the 15 ppmw sulfur content diesel fuel requirement shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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38. The sulfur content of natural gas shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. If sulfur content is less than 1.0 gr/100 scf for 8 consecutive weeks, then the Monitoring frequency shall be every six months. If any six month monitoring show an exceedance, weekly monitoring shall resume. [District Rule 2520, 9.3.2; and 40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
39. The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x, CO, and O₂ concentrations. The CEM shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [40 CFR 60.334 (b) and District Rules 4703, 6.2.1, 2201, & 1080] Federally Enforceable Through Title V Permit
40. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.4; and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
41. The NO_x, CO, and O₂ CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2, 3, and 4A or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit
42. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system and shall make CEM Data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
43. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
44. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [District Rule 1080, 7.3; and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
45. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The reports is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; 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; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, 8.0; and 40 CFR 60.334(j), (j)(5), 60.7(c), 60.7(d)] Federally Enforceable Through Title V Permit
46. APCO or an authorized representative shall be allowed to inspect, as determined 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
47. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
48. Results of the CEMS shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of 40 CFR 60.13. [District Rule 4703, 5.1 & 6.4; and 40 CFR 60.13] 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.

49. In accordance with 40 CFR, Part 60, Appendix F, 5.1, cylinder gas audits (CGA) or relative accuracy audits (RAA) of continuous emission monitors shall be conducted quarterly, except during quarters in which a relative accuracy test audit (RATA) is performed. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
50. The owner/operator shall perform a RATA as specified by 40 CFR Part 60, Appendix F, 5.11, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
51. The permittee shall monitor and record the fuel flow rate, NO_x emission rate, CO emission rate, ammonia injection rate, exhaust temperature both prior to and after the SCR system, exhaust oxygen content and exhaust flow rate. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit
52. Owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local time start-up and stop time, total hours of operation, type and quantity of fuel used. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
53. The permittee shall maintain the following records: date and time, duration, and type of any start-up, shutdown, or malfunction; source testing, evaluations, calibrations, checks, adjustments, any period which a continuous monitoring system or device was inoperative, and maintenance of any continuous emission monitoring system or device. [District Rule 2201] Federally Enforceable Through Title V Permit
54. The facility's operating and alarm logs must be available at the time of inspection. [District Rule 2201] Federally Enforceable Through Title V Permit
55. Owner or operator shall keep the following records: (1) A record of the 12-month rolling combined NO_x, VOC, CO, PM₁₀, and SO_x emissions for units N-2052-1 and N-2052-2, in (lb/year). This record shall be updated on at least a monthly basis, (2) A record of the total combined annual heat input for units N-2052-1 and N-2052-2. This record shall be updated on at least a monthly basis, (3) A record of the combined annual heat input for units N-2052-1 and N-2052-2, when firing on diesel fuel. This record shall be updated on at least a monthly basis, and (4) A record of the annual total duration of all start-up and shutdown events for this turbine. [District Rule 2520] Federally Enforceable Through Title V Permit
56. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4703] Federally Enforceable Through Title V Permit
57. The requirements of the Acid Rain Program do not apply to this source because this is a simple combustion turbine that commenced commercial operation before November 15, 1990. A permit shield is granted from this requirement. [District Rule 2520, 13.2; and 40 CFR 72.6(b)(1)] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 407 (Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a)(1), (h)(3), (j), (j)(1)(iii), and (j)(5). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
60. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.13, and District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 8.0, and 11.0; 1081(as amended 12/16/93), Sections 3.0, 6.0, 7.1, 7.2, and 7.3; and 4201 (as amended 12/17/92). 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.

ATTACHMENT B

Previous Title V Operating Permit

San Joaquin Valley

Air Pollution Control District

FACILITY: N-2052-0-3

EXPIRATION DATE: 09/30/2020

FACILITY-WIDE REQUIREMENTS

1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rules 1100, 2410, Stanislaus County Rule 110] 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 Rules 1100, 2410, Stanislaus County Rule 110] 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. 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. In the event of changes in control or ownership, District Rule 2410 shall be binding on new owners and operators. The applicant shall notify successor of the existence of District Rule 2410 and its conditions in writing and forward a copy to the District, California Air Resources Board, and EPA. [District Rule 2031 and 2410] Federally Enforceable Through Title V Permit
8. 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
9. 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.

10. 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
11. 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
12. 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
13. 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 Rules 2410 and 2520] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. 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
17. 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
18. 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
19. 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 Rules 2410 and 2520] Federally Enforceable Through Title V Permit
20. 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 Rules 2410 and 2520] Federally Enforceable Through Title V Permit
21. 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 Rules 2410 and 2520] Federally Enforceable Through Title V Permit
22. 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 Rules 2410 and 2520] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE
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23. 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
24. 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
25. 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
26. 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
27. 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
28. 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
29. 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
30. 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
31. 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
32. 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
33. 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
34. 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.

35. 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
36. 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
37. 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
38. 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
39. 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
40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Stanislaus County Rules 110, 202, and 401. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. 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
42. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
43. When applicable to 40 CFR Part 68, a subject facility shall submit to the proper authority a Risk Management Plan when mandated by the regulation. [40 CFR Part 68] Federally Enforceable Through Title V Permit
44. On April 30, 2003, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin May 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
45. All correspondence as required by a permit condition based on District Rule 2410 shall be forwarded to: the District; Director, Air & Toxics Div. (Attn: A-3), EPA Region IX, 75 Hawthorne St. San Francisco, CA 94105; and Chief, Stationary Source Div., CARB, P.O. Box 2815, Sacramento, CA 95812. [District Rule 2410] Federally Enforceable Through Title V Permit
46. Compliance with permit conditions in the Title V permit shall be deemed in compliance with Federal NSR/PSD Permit SJ 79-16. 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: N-2052-1-10

EXPIRATION DATE: 09/30/2020

EQUIPMENT DESCRIPTION:

ONE (1) GENERAL ELECTRIC MODEL MS-7000-1-B GAS TURBINE ENGINE (SERIAL # 281786) SERVING A 49.5 MW ELECTRICAL GENERATOR (UNIT #1)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in proper operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rules 2201 and 2410] Federally Enforceable Through Title V Permit
3. A selective catalytic reduction (SCR) system and an oxidation catalyst shall serve the gas turbine engine. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators or equivalent technology sufficient to limit the visible emissions from the lube oil vents to not exceed 5% opacity, except for a period not exceeding three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Natural gas or 15 ppmw sulfur diesel are the only fuels permitted for combustion in the turbine. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall be fired on natural gas as defined in 40 CFR 60.331(u) which has a total sulfur content of less than or equal to 1.0 gr/100 scf. [40 CFR 60.33(b), District Rule 4201, and Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
7. Fuel consumption shall be limited to 794.6 MMBtu per hour. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The duration of all start-up and shutdown events shall not exceed 200 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The heat input to units N-2052-1 and N-2052-2 combined shall be limited to a total of 4,000,000 MMBtu/year when firing on natural gas and diesel during base load operation. The heat input to units N-2052-1 and N-2052-2 combined shall be limited to 2,000,000 MMBtu/year when firing on diesel during base load operation. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Except during start-up and shutdown periods, emissions from this unit shall not exceed any of the following limits when fired on natural gas: NO_x (as NO₂) - 8.64 lb/hr and 3.0 ppmvd @ 15% O₂; VOC (as CH₄) - 2.01 lb/hr and 2.0 ppmvd @ 15% O₂; CO - 26.29 lb/hr and 15.0 ppmvd @ 15% O₂; PM₁₀ - 7.5 lb/hr; or SO_x - 2.26 lb/hr. All emission concentration limits are based on 3-hour rolling averages. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Except during start-up and shutdown periods, emissions from this unit shall not exceed any of the following limits when fired on 15 ppmw sulfur diesel: NO_x (as NO₂) - 15.31 lb/hr and 5.0 ppmvd @ 15% O₂; VOC (as CH₄) - 2.14 lb/hr and 2.0 ppmvd @ 15% O₂; CO - 27.97 lb/hr and 15.0 ppmvd @ 15% O₂; PM₁₀ - 20.00 lb/hr; or SO_x - 1.19 lb/hr. All emission concentration limits are based on 3-hour rolling averages. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit
12. Except during start-up and shutdown periods, NO_x emissions from this unit shall not exceed the heat input weighted average of the applicable ppmvd or hourly limits when fired simultaneously on natural gas and 15 ppmw sulfur diesel, as calculated by the following equation: Weighted Average Limit = [(NO_x limit for gaseous fuel x heat input from gaseous fuel) + (NO_x limit for liquid fuel x heat input for liquid fuel)]/(heat input for gaseous fuel + heat input from liquid fuel). All emission concentration limits are based on 3-hour rolling averages. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The emissions during start-up and shutdown periods shall not exceed 40 lb NO_x (as NO₂)/hr and 100 lb CO/hr when firing on natural gas or diesel. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Start-up period is defined as the period of time during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. The start-up period shall not exceed two hours for each start-up. [District Rule 4703, 3.24] Federally Enforceable Through Title V Permit
15. Shutdown is defined as the period beginning with the initiation of the turbine shutdown sequence and ending with the cessation of the firing of the turbine. The shutdown period shall not exceed two hours for each shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
16. The ammonia emissions shall not exceed either of the following limits: 11.4 lb/hr or 10.0 ppmvd @ 15% O₂ based on a 24-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) Calculate ammonia slip utilizing the following equation: ammonia slip ppmvd @ 15% O₂ = $\left\{ \left[a - \left(b \times c / 1,000,000 \right) \right] \times \left(1,000,000 / b \right) \right\} \times \left[(20.9 - 15.0) / (20.9 - e) \right] \times d$, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NO_x concentration across the catalyst, d = correction factor, and e = stack O₂ concentration (% vd). The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O₂. If this option is chosen, the permittee shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the permittee may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the permittee shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rule 4102]
18. Emission rates shall not exceed any of the following limits: NO_x (as NO₂) - 441.5 lb/day; VOC - 51.4 lb/day; CO - 887.4 lb/day; PM₁₀ - 480.0 lb/day; or SO_x (as SO₂) - 54.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emissions from units N-2052-1 and N-2052-2 combined shall not exceed any of the following limits: NO_x (as NO₂) - 76,282 lb/year; VOC - 11,302 lb/year, CO - 176,572 lb/year, PM₁₀ - 77,218 lb/year; or SO_x - 12,281 lb/year. All annual emission limits are based on twelve consecutive month rolling emissions totals. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Each 3-hour rolling average will be compiled from the three most recent one hour periods. Each 1-hour period shall commence on the hour. Each 1-hour period in a 24-hour average for ammonia slip will commence on the hour. The 24-hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Daily emissions will be compiled for a 24-hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total will commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals to determine compliance with annual emission limits will be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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22. Source testing to measure NO_x, CO, VOC, PM₁₀ and ammonia emissions shall be conducted at least once every twelve months. NO_x, CO, VOC and ammonia emissions shall be reported in ppmvd @ 15% O₂ and lb/hr, and PM₁₀ emissions shall be reported in lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Source testing to measure the start-up NO_x emission rate shall be conducted at least once every seven years. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit
25. Emission concentrations shall be measured using the following test methods: EPA Methods 7E or 20 for NO_x emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. [District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Federally Enforceable Through Title V Permit
26. VOC emissions (referenced as methane) shall be determined using EPA method 18 or EPA method 25. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
27. PM₁₀ emissions shall be determined using EPA methods 201 and 202, EPA methods 201A and 202, EPA Method 5 or CARB Method 5 (total particulates). [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
28. Ammonia emissions shall be determined using BAAQMD method ST-1B. [District Rules 1081 and 4102] Federally Enforceable Through Title V Permit
29. The higher heating value and lower heating value of distillate fuels shall be determined using ASTM D240-87 or ASTM D2382-88. [District Rule 4703] Federally Enforceable Through Title V Permit
30. The higher heating value and lower heating value of gaseous fuels shall be determined using ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81. [District Rule 4703] Federally Enforceable Through Title V Permit
31. The owner or operator shall be required to conform to the sampling facilities and testing procedures described in District Rule 1081, 3.0, & 6.0 (as amended 12/16/93). [District Rule 1081, 3.0 & 6.0] Federally Enforceable Through Title V Permit
32. The District must be notified 30 days prior to any source testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
33. Source testing shall be witnessed or authorized by District personnel. Test results must be submitted to the District within 60 days of source testing. [District Rule 1081, 7.2 & 7.3] Federally Enforceable Through Title V Permit
34. EPA approved alternative source testing methods will be allowed, upon District approval, provided it does not result in a relaxation of emission limitations. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081 and 4001] Federally Enforceable Through Title V Permit
35. If the turbine is fired on noncertified diesel fuel, then the sulfur content of the liquid fuel being fired in the unit shall be determined using ASTM D 129-00, D 2622-98, D 4294-02, D 1266-98, D 5453-00 or D 1552-01. [District Rule 2520, 9.3.2 and 40 CFR 60.335(10)(i)] Federally Enforceable Through Title V Permit
36. If the turbine is not fired on certified 15 ppmw sulfur diesel fuel, the sulfur content shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(4)] Federally Enforceable Through Title V Permit
37. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the 15 ppmw sulfur content diesel fuel requirement shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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38. The sulfur content of natural gas shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. If sulfur content is less than 1.0 gr/100 scf for 8 consecutive weeks, then the Monitoring frequency shall be every six months. If any six month monitoring show an exceedance, weekly monitoring shall resume. [40 CFR 60.334(h)(3) and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
39. The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x, CO, and O₂ concentrations. The CEM shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [40 CFR 60.334 (b) and District Rules 4703, 6.2.1, 2201, & 1080] Federally Enforceable Through Title V Permit
40. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
41. The NO_x, CO, and O₂ CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2, 3, and 4A or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit
42. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system and shall make CEM Data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
43. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
44. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
45. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The reports is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; 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; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5), 60.7(c), 60.7(d), and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
46. APCO or an authorized representative shall be allowed to inspect, as determined 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
47. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
48. Results of the CEMS shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of 40 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.

49. In accordance with 40 CFR, Part 60, Appendix F, 5.1, cylinder gas audits (CGA) or relative accuracy audits (RAA) of continuous emission monitors shall be conducted quarterly, except during quarters in which a relative accuracy test audit (RATA) is performed. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
50. The owner/operator shall perform a RATA as specified by 40 CFR Part 60, Appendix F, 5.11, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
51. The permittee shall monitor and record the fuel flow rate, NO_x emission rate, CO emission rate, ammonia injection rate, exhaust temperature both prior to and after the SCR system, exhaust oxygen content and exhaust flow rate. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit
52. Owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local time start-up and stop time, total hours of operation, type and quantity of fuel used. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
53. The permittee shall maintain the following records: date and time, duration, and type of any start-up, shutdown, or malfunction; source testing, evaluations, calibrations, checks, adjustments, any period which a continuous monitoring system or device was inoperative, and maintenance of any continuous emission monitoring system or device. [District Rule 2201] Federally Enforceable Through Title V Permit
54. The facility's operating and alarm logs must be available at the time of inspection. [District Rule 2201] Federally Enforceable Through Title V Permit
55. Owner or operator shall keep the following records: (1) A record of the 12-month rolling combined NO_x, VOC, CO, PM₁₀, and SO_x emissions for units N-2052-1 and N-2052-2, in (lb/year). This record shall be updated on at least a monthly basis, (2) A record of the total combined annual heat input for units N-2052-1 and N-2052-2. This record shall be updated on at least a monthly basis, (3) A record of the combined annual heat input for units N-2052-1 and N-2052-2, when firing on diesel fuel. This record shall be updated on at least a monthly basis, and (4) A record of the annual total duration of all start-up and shutdown events for this turbine. [District Rule 2520] Federally Enforceable Through Title V Permit
56. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4703] Federally Enforceable Through Title V Permit
57. The requirements of the Acid Rain Program do not apply to this source because this is a simple combustion turbine that commenced commercial operation before November 15, 1990. A permit shield is granted from this requirement. [40 CFR 72.6(b)(1) and District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 407 (Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a)(1), (h)(3), (j), (j)(1)(iii), and (j)(5). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
60. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.13, and District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 8.0, and 11.0; 1081(as amended 12/16/93), Sections 3.0, 6.0, 7.1, 7.2, and 7.3; and 4201 (as amended 12/17/92). 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: N-2052-2-11

EXPIRATION DATE: 09/30/2020

EQUIPMENT DESCRIPTION:

ONE (1) GENERAL ELECTRIC MODEL MS-7000-1-B GAS TURBINE ENGINE (SERIAL # 281905) SERVING A 49.5 MW ELECTRICAL GENERATOR (UNIT #2)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in proper operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201 and 2410] Federally Enforceable Through Title V Permit
3. A selective catalytic reduction (SCR) system and an oxidation catalyst shall serve the gas turbine engine. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators or equivalent technology sufficient to limit the visible emissions from the lube oil vents to not exceed 5% opacity, except for a period not exceeding three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Natural gas or 15 ppmw sulfur diesel are the only fuels permitted for combustion in the turbine. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit shall be fired on natural gas as defined in 40 CFR 60.331(u) which has a total sulfur content of less than or equal to 1.0 gr/100 scf. [40 CFR 60.33(b), District Rule 4201, and Stanislaus Country Rule 407] Federally Enforceable Through Title V Permit
7. Fuel consumption shall be limited to 794.6 MMBtu per hour. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The duration of all start-up and shutdown events shall not exceed 200 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The heat input to units N-2052-1 and N-2052-2 combined shall be limited to a total of 4,000,000 MMBtu/year when firing on natural gas and diesel during base load operation. The heat input to units N-2052-1 and N-2052-2 combined shall be limited to 2,000,000 MMBtu/year when firing on diesel during base load operation. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Except during start-up and shutdown periods, emissions from this unit shall not exceed any of the following limits when fired on natural gas: NO_x (as NO₂) - 8.64 lb/hr and 3.0 ppmvd @ 15% O₂ ; VOC (as CH₄) - 2.01 lb/hr and 2.0 ppmvd @ 15% O₂; CO - 26.29 lb/hr and 15.0 ppmvd @ 15% O₂; PM₁₀ - 7.5 lb/hr; or SO_x - 2.26 lb/hr. All emission concentration limits are based on 3-hour rolling averages. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Except during start-up and shutdown periods, emissions from this unit shall not exceed any of the following limits when fired on 15 ppmw sulfur diesel: NO_x (as NO₂) - 15.31 lb/hr and 5.0 ppmvd @ 15% O₂ ; VOC (as CH₄) - 2.14 lb/hr and 2.0 ppmvd @ 15% O₂; CO - 27.97 lb/hr and 15.0 ppmvd @ 15% O₂; PM₁₀ - 20.00 lb/hr; or SO_x - 1.19 lb/hr. All emission concentration limits are based on 3-hour rolling averages. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit
12. Except during start-up and shutdown periods, NO_x emissions from this unit shall not exceed the heat input weighted average of the applicable ppmvd or hourly limits when fired simultaneously on natural gas and 15 ppmw sulfur diesel, as calculated by the following equation: Weighted Average Limit = [(NO_x limit for gaseous fuel x heat input from gaseous fuel) + (NO_x limit for liquid fuel x heat input for liquid fuel)]/(heat input for gaseous fuel + heat input from liquid fuel). All emission concentration limits are based on 3-hour rolling averages. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The emissions during start-up and shutdown periods shall not exceed 40 lb NO_x (as NO₂)/hr and 100 lb CO/hr when firing on natural gas or diesel. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Start-up period is defined as the period of time during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. The start-up period shall not exceed two hours for each start-up. [District Rule 4703, 3.24] Federally Enforceable Through Title V Permit
15. Shutdown is defined as the period beginning with the initiation of the turbine shutdown sequence and ending with the cessation of the firing of the turbine. The shutdown period shall not exceed two hours for each shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
16. The ammonia emissions shall not exceed either of the following limits: 11.4 lb/hr or 10.0 ppmvd @ 15% O₂ based on a 24-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) Calculate ammonia slip utilizing the following equation: ammonia slip ppmvd @ 15% O₂ = $\left\{ \left[a - \left(b \times c / 1,000,000 \right) \right] \times \left(1,000,000 / b \right) \right\} \times \left[(20.9 - 15.0) / (20.9 - e) \right] \times d$, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NO_x concentration across the catalyst, d = correction factor, and e = stack O₂ concentration (% vd). The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O₂. If this option is chosen, the permittee shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the permittee may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the permittee shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rule 4102]
18. Emission rates shall not exceed any of the following limits: NO_x (as NO₂) - 441.5 lb/day; VOC - 51.4 lb/day; CO - 887.4 lb/day; PM₁₀ - 480.0 lb/day; or SO_x (as SO₂) - 54.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emissions from units N-2052-1 and N-2052-2 combined shall not exceed any of the following limits: NO_x (as NO₂) - 76,282 lb/year; VOC - 11,302 lb/year, CO - 176,572 lb/year, PM₁₀ - 77,218 lb/year; or SO_x - 12,281 lb/year. All annual emission limits are based on twelve consecutive month rolling emissions totals. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Each 3-hour rolling average will be compiled from the three most recent one hour periods. Each 1-hour period shall commence on the hour. Each 1-hour period in a 24-hour average for ammonia slip will commence on the hour. The 24-hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Daily emissions will be compiled for a 24-hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total will commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals to determine compliance with annual emission limits will be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. Source testing to measure NO_x, CO, VOC, PM₁₀ and ammonia emissions shall be conducted at least once every twelve months. NO_x, CO, VOC and ammonia emissions shall be reported in ppmvd @ 15% O₂ and lb/hr, and PM₁₀ emissions shall be reported in lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Source testing to measure the start-up NO_x emission rate shall be conducted at least once every seven years. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit
25. Emission concentrations shall be measured using the following test methods: EPA Methods 7E or 20 for NO_x emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. [District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Federally Enforceable Through Title V Permit
26. VOC emissions (referenced as methane) shall be determined using EPA method 18 or EPA method 25. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
27. PM₁₀ emissions shall be determined using EPA methods 201 and 202, EPA methods 201A and 202, EPA Method 5 or CARB Method 5 (total particulates). [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
28. Ammonia emissions shall be determined using BAAQMD method ST-1B. [District Rules 1081 and 4102] Federally Enforceable Through Title V Permit
29. The higher heating value and lower heating value of distillate fuels shall be determined using ASTM D240-87 or ASTM D2382-88. [District Rule 4703] Federally Enforceable Through Title V Permit
30. The higher heating value and lower heating value of gaseous fuels shall be determined using ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81. [District Rule 4703] Federally Enforceable Through Title V Permit
31. The owner or operator shall be required to conform to the sampling facilities and testing procedures described in District Rule 1081, 3.0, & 6.0 (as amended 12/16/93). [District Rule 1081, 3.0 & 6.0] Federally Enforceable Through Title V Permit
32. The District must be notified 30 days prior to any source testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
33. Source testing shall be witnessed or authorized by District personnel. Test results must be submitted to the District within 60 days of source testing. [District Rule 1081, 7.2 & 7.3] Federally Enforceable Through Title V Permit
34. EPA approved alternative source testing methods will be allowed, upon District approval, provided it does not result in a relaxation of emission limitations. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081 and 4001] Federally Enforceable Through Title V Permit
35. If the turbine is fired on noncertified diesel fuel, then the sulfur content of the liquid fuel being fired in the unit shall be determined using ASTM D 129-00, D 2622-98, D 4294-02, D 1266-98, D 5453-00 or D 1552-01. [District Rule 2520, 9.3.2 and 40 CFR 60.335(10)(i)] Federally Enforceable Through Title V Permit
36. If the turbine is not fired on certified 15 ppmw sulfur diesel fuel, the sulfur content shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(4)] Federally Enforceable Through Title V Permit
37. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the 15 ppmw sulfur content diesel fuel requirement shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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38. The sulfur content of natural gas shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. If sulfur content is less than 1.0 gr/100 scf for 8 consecutive weeks, then the Monitoring frequency shall be every six months. If any six month monitoring show an exceedance, weekly monitoring shall resume. [40 CFR 60.334(h)(3) and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
39. The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x, CO, and O₂ concentrations. The CEM shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [40 CFR 60.334 (b) and District Rules 4703, 6.2.1, 2201, & 1080] Federally Enforceable Through Title V Permit
40. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
41. The NO_x, CO, and O₂ CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2, 3, and 4A or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit
42. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system and shall make CEM Data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
43. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
44. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
45. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The reports is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; 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; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5), 60.7(c), 60.7(d), and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
46. APCO or an authorized representative shall be allowed to inspect, as determined 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
47. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
48. Results of the CEMS shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of 40 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.

49. In accordance with 40 CFR, Part 60, Appendix F, 5.1, cylinder gas audits (CGA) or relative accuracy audits (RAA) of continuous emission monitors shall be conducted quarterly, except during quarters in which a relative accuracy test audit (RATA) is performed. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
50. The owner/operator shall perform a RATA as specified by 40 CFR Part 60, Appendix F, 5.11, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
51. The permittee shall monitor and record the fuel flow rate, NO_x emission rate, CO emission rate, ammonia injection rate, exhaust temperature both prior to and after the SCR system, exhaust oxygen content and exhaust flow rate. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit
52. Owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local time start-up and stop time, total hours of operation, type and quantity of fuel used. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
53. The permittee shall maintain the following records: date and time, duration, and type of any start-up, shutdown, or malfunction; source testing, evaluations, calibrations, checks, adjustments, any period which a continuous monitoring system or device was inoperative, and maintenance of any continuous emission monitoring system or device. [District Rule 2201] Federally Enforceable Through Title V Permit
54. The facility's operating and alarm logs must be available at the time of inspection. [District Rule 2201] Federally Enforceable Through Title V Permit
55. Owner or operator shall keep the following records: (1) A record of the 12-month rolling combined NO_x, VOC, CO, PM₁₀, and SO_x emissions for units N-2052-1 and N-2052-2, in (lb/year). This record shall be updated on at least a monthly basis, (2) A record of the total combined annual heat input for units N-2052-1 and N-2052-2. This record shall be updated on at least a monthly basis, (3) A record of the combined annual heat input for units N-2052-1 and N-2052-2, when firing on diesel fuel. This record shall be updated on at least a monthly basis, and (4) A record of the annual total duration of all start-up and shutdown events for this turbine. [District Rule 2520] Federally Enforceable Through Title V Permit
56. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4703] Federally Enforceable Through Title V Permit
57. The requirements of the Acid Rain Program do not apply to this source because this is a simple combustion turbine that commenced commercial operation before November 15, 1990. A permit shield is granted from this requirement. [40 CFR 72.6(b)(1) and District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 407 (Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a)(1), (h)(3), (j), (j)(1)(iii), and (j)(5). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
60. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.13, and District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 8.0, and 11.0; 1081(as amended 12/16/93), Sections 3.0, 6.0, 7.1, 7.2, and 7.3; and 4201 (as amended 12/17/92). 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.

ATTACHMENT C

Detailed Summary List of Facility Permits

SJVUAPCD
NORTHERN

Detailed Facility Report
For Facility=2052 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

5/14/21
12:03 pm

| | | | | | |
|--|--------------------------------|---------------------------|-------------------------------|------------------------------------|----------------------------|
| MODESTO IRRIGATION DISTRICT 639 S MCCLURE RD MODESTO, CA 95352 | FAC # STATUS: TELEPHONE: | N 2052 A 2095267616 | TYPE: T16W TOXIC ID: 10666 | EXPIRE ON: AREA: INSP. DATE: | 09/30/2020 5 / 02/22 |
|--|--------------------------------|---------------------------|-------------------------------|------------------------------------|----------------------------|

| PERMIT NUMBER | FEE DESCRIPTION | FEE RULE | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION |
|---------------|-----------------|------------|-----|------------|-----------|---------------|--|
| N-2052-1-10 | 49,500 KW | 3020-08A G | 1 | 12,254.00 | 12,254.00 | A | ONE (1) GENERAL ELECTRIC MODEL MS-7000-1-B GAS TURBINE ENGINE (SERIAL # 281786) SERVING A 49.5 MW ELECTRICAL GENERATOR (UNIT #1) |
| N-2052-2-11 | 49,500 KW | 3020-08A G | 1 | 12,254.00 | 12,254.00 | A | ONE (1) GENERAL ELECTRIC MODEL MS-7000-1-B GAS TURBINE ENGINE (SERIAL # 281905) SERVING A 49.5 MW ELECTRICAL GENERATOR (UNIT #2) |

Number of Facilities Reported: 1

ATTACHMENT D

HAP Major Source Calculations

| Name | | Natural Gas-Fired Turbines | | |
|---|---|-----------------------------------|--|--------------|
| Applicability | Use this spreadsheet for Natural Gas-Fired Stationary Gas Turbines. Entries required in yellow areas, output in gray areas. | | | |
| <i>Author or updater</i> | Matthew Cegielski | <i>Last Update</i> | April 5, 2016 | |
| Facility: | Modesto Irrigation District | | | |
| ID#: | N-2052 | | | |
| Project #: | N-1201262 | | | |
| Inputs | MMscf /hr | MMscf /yr | Formula | |
| Natural Gas usage rate | 7.95E-01 | 4,000.000 | Supply the necessary rate in MMscf. Use the dropdown to enter a Y if a SCONOX catalyst is used. Emissions are calculated by the multiplication of Fuel Rates and Emission Factors. | |
| SCONOX Catalyst? Y or N | N | | | |
| | | | | |
| | | | | |
| Substances | CAS# | Emission Factor lbs/ MMscf | LB/HR | LB/YR |
| 1, 3 Butadiene | 106990 | 4.30E-04 | 3.42E-04 | 1.72E+00 |
| Acetaldehyde | 75070 | 4.00E-02 | 3.18E-02 | 1.60E+02 |
| Acrolein | 107028 | 6.40E-03 | 5.09E-03 | 2.56E+01 |
| Benzene | 71432 | 1.20E-02 | 9.54E-03 | 4.80E+01 |
| Ethyl Benzene | 100414 | 3.20E-02 | 2.54E-02 | 1.28E+02 |
| Formaldehyde | 50000 | 7.10E-01 | 5.64E-01 | 2.84E+03 |
| Naphthalene | 91203 | 1.30E-03 | 1.03E-03 | 5.20E+00 |
| PAH's | 1150 | 2.20E-03 | 1.75E-03 | 8.80E+00 |
| Propylene Oxide | 75569 | 2.90E-02 | 2.30E-02 | 1.16E+02 |
| Toluene | 108883 | 1.30E-01 | 1.03E-01 | 5.20E+02 |
| Xylenes | 1330207 | 6.40E-02 | 5.09E-02 | 2.56E+02 |
| | | | | |
| | | | | |
| References: | | | | |
| * The emission factors are derived from table 3.1-3, "Emission Factors for Hazardous Air Pollutants from Natural Gas-Fired Stationary Gas Turbines" in April 2000 AP 42 Chapter 3 Stationary Internal Combustion Sources, Section 3 Stationary Gas Turbines. Assumes 1,000 Btu's per scf natural gas. | | | | |
| Emission factors in boxes change when a SCONOX catalyst is used. SCONOX™ is a NOx reduction system produced by Goal Line Environmental Technologies (now distributed by EmeraChem) | | | | |
| | | | | |