

May 14, 2021

Mr. Michael A. Tehada  
Turlock Irrigation District  
PO Box 949  
Turlock, CA 95381

**Re: Notice of Preliminary Decision – Title V Permit Renewal**  
**Facility Number: N-2246**  
**Project Number: N-1201263**

Dear Mr. Tehada:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Turlock Irrigation District at 325 S Washington Rd, Turlock, California.

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

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. 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

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# SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

## Proposed Title V Permit Renewal Evaluation Turlock Irrigation District N-2246

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# TITLE V PERMIT RENEWAL EVALUATION

## Power Generation Facility

**Engineer:** Gurpreet Brar  
**Date:** March 25, 2021

**Facility Number:** N-2246  
**Facility Name:** Turlock Irrigation District  
**Mailing Address:** PO Box 949  
Turlock, CA 95381

**Contact Name:** Michael A. Tehada  
**Phone:** (209) 883-3455

**Responsible Official:** Michael A. Tehada  
**Title:** Combustion Turbine Department Manager

**Project # :** N-1201263  
**Deemed Complete:** March 31, 2020

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## I. PROPOSAL

Turlock Irrigation District was issued their initial Title V permit in 2004. 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

Turlock Irrigation District is located at 325 S Washington Rd in Turlock, 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 40 of the requirements for permit unit N-2246-0-4.

## 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 JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (amended December 4, 2020)
- 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 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (amended December 4, 2020)
- 40 CFR Part 64, Compliance Assurance Monitoring (adopted October 22, 1997)

## **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 4701, Internal Combustion Engines – Phase 1 (amended August 21, 2003)
- District Rule 4702, Internal Combustion Engines (amended November 14, 2013)
- District Rule 4703, Stationary Gas Turbines (amended September 20, 2007)
- District Rule 4801, Sulfur Compounds (amended December 17, 1992)
- 40 CFR Part 60 Subpart GG, Standards of Performance for Stationary Gas Turbines (amended February 27, 2014)

## VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

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

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

### 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-2246-0-4  | 41               |

## 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 permit condition #35 on draft renewed permits N-2246-1-11 and -2-11 demonstrates compliance with Section 60.7(c) that requires monitoring of parameters during the performance test per Section 60.8 of this subpart to establish acceptable values and ranges. Section 60.7(c) of this subpart was not modified with this amendment, so it does not have any effect on the existing permit requirements. The draft permits were not subject to the

requirements of Section 60.17(g). Therefore, continued compliance with this subpart is expected.

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

| Renewed Permit        | Permit Condition |
|-----------------------|------------------|
| N-2246-1-11 and -2-11 | 35 and 37        |

**5. 40 CFR Part 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

The following discussion applies to the spark-ignited engines operating under permit units N-2246-8 and N-2246-9.

§60.4230(a)(4) and (a)(5) specify for owners which stationary spark ignition (SI) internal combustion engines (ICE) are subject to the provisions of this subpart. There are no modifications done to the applicability sections with the recent amendments to this subpart.

Section (a)(4) applies to stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

- (i) On or after July 1, 2007 for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);
- (ii) On or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;
- (iii) On or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or
- (iv) On or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

The engine under permit unit N-2246-8 was not constructed, modified or reconstructed after June 12, 2006. Therefore per section 60.4230(a)(4), this subpart does not apply to this unit.

The engine under permit unit N-2246-9 was installed in 2007. The engine installed was manufactured prior to January 1, 2009. Therefore per section 60.4230(a)(4), this subpart does not apply to this engine.

Section (a)(5) applies to stationary SI ICE that commence modification or reconstruction after June 12, 2006. Since the engines of at this facility have not been modified or reconstructed this section does not apply and will not be discussed further.

None of the engines meet any of the applicability requirements listed in §60.4230(a)(4) and (a)(5). Therefore, no requirements of 40 CFR 60 Subpart JJJJ apply to these engines.

**6. 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.

**7. 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.

**8. 40 CFR Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

The following discussion applies to the spark-ignited engines operating under permit units N-2246-8 and -9.

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

§ 63.6585 Am I subject to this subpart?

This subpart applies to owners and operators of stationary reciprocating internal combustion engines (RICE) operated at a major or area source of Hazardous Air Pollutant (HAP) emissions.

Section (b) states a major source of HAP emissions is a plant site 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.

Section (c) states an area source of HAP emissions is a source that is not a major source.

Per TV renewal evaluation under project N-1091436, this facility is not a major source for HAP emissions. Since no changes have been made to the facility since that renewal, this facility is still not a major source of HAP emissions. Therefore, this facility is an area source for HAP emissions and is subject to this subpart.

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) Existing stationary RICE

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

- (ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
- (iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
- (iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

The engine under permit unit N-2246-8-4 is an existing stationary RICE since it is located at an area source of HAP emissions and has commenced construction before June 12, 2006. Therefore, it is subject to the requirements of this subpart.

(2) New stationary RICE

- (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.
- (ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
- (iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

Section (c) Stationary RICE subject to Regulations under 40 CFR Part 60  
An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

- (1) A new or reconstructed stationary RICE located at an area source;
- (2) A new or reconstructed 2 stroke lean burn (2SLB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

- (3) A new or reconstructed 4 stroke lean burn (4SLB) stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;
- (4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
- (6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

N-2246-9-4: 170 BHP GENERAL MOTORS INDUSTRIAL POWERTRAIN PROPANE/LPG-FIRED EMERGENCY STANDBY IC ENGINE WITH A JOHNSON MATTHEY MODEL BANDITO NON-SELECTIVE CATALYTIC REDUCTION (NSCR) SYSTEM POWERING AN ELECTRICAL GENERATOR

This unit was constructed after June 12, 2006 and is therefore considered a new emergency stationary RICE. Per section 63.6950(c)(1) a new or reconstructed stationary RICE located at an area source meets the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines.

This unit is a new emergency stationary RICE; therefore, it is not subject to the requirements of this subpart. No further discussion is required for permit unit N-2246-9 under this subpart.

N-2246-8-4: 170 BHP GENERAL MOTORS MODEL VORTEC PROPANE-FIRED EMERGENCY STANDBY IC ENGINE WITH 3-WAY CATALYST POWERING AN ELECTRICAL GENERATOR

The following discussion is for permit unit N-2246-8 that is subject to the requirements of this subpart:

§63.6595 When do I have to comply with this subpart?

Section (a)(6) states if you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

The following condition (#4 on draft permit N-2246-8-4) enforce on-going compliance with the requirements of this section.

- The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ]

§63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

This section states that compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

Section (a) states if you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

The following conditions (#'s 10, 11, 12 & 13 on draft permit N-2246-8-4) enforce on-going compliance with the requirements in Table 2d. Note that this engine is not subject to any operating limitations in Table 2b.

- The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR Part 63 Subpart ZZZZ]

- The engine's spark plugs shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR Part 63 Subpart ZZZZ]
- The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR Part 63 Subpart ZZZZ]
- The owner or operator has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR Part 63 Subpart ZZZZ]

§63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

Section (b) states that beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.



This section does not apply to any permit units at this facility. Therefore, this section will not be discussed any further.

§63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

For the engine under permit unit N-2246-8, there are no applicable emissions limitations to comply from this subpart. As such, no initial performance tests are required.

§63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

Section (e)(3) states that if you own or operate an existing emergency or black start stationary RICE located at an area source of HAP emissions, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

The following condition (#3 on draft permit N-2246-8-4) enforce on-going compliance with this section:

- This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR Part 63 Subpart ZZZZ]

Section (f) states that if you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

The engine under permit unit N-2246-8 is already equipped with the non-resettable hour meter. The following condition (#7 on draft permit N-2246-8-4) enforce on-going compliance with this section:

- The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternative device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. The owner or operator shall maintain these required meters in proper operating condition. The fuel meter shall be calibrated periodically per the recommendations of the manufacturer. [District Rules 2201 and 4702, and 40 CFR Part 63 Subpart ZZZZ]

Section (h) states if you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply. The following condition (#14 on draft permit N-2246-8-4) enforce on-going compliance with this section:

- The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR Part 63 Subpart ZZZZ]

§63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

Section (a) states that you must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.

Section (b) states during the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

Section (c) states that you must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

The engine under draft permit N-2246-8-4 is not subject to the items in Tables 1b, 2b and 5 of this subpart and no initial testing is required. Therefore, no further discussion is required.

§63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

- (a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.
- (b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.
- (e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart:

An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited.

If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(3) & (4) Emergency stationary RICE located at major sources or area source of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section.

The following condition (#9 on draft permit N-2246-8-4) enforce on-going compliance with this section:

- This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per year. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]

§63.6645 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following:

(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

(2) An existing stationary RICE located at an area source of HAP emissions.

(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004, or no later than 120 days after the source becomes subject to this subpart, whichever is later.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008, or no later than 120 days after the source becomes subject to this subpart, whichever is later.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

The engine under draft permit N-2246-8-4 is not subject to emissions or operating limitations in this subpart. However, it is subject to the other management practices in this subpart, and are complying with the requirements of this subpart.

§63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

- (f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.
- (g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.
- (h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.

The engine under draft permit N-2246-8-4 does not fit in any category in Table 7. Additionally, this unit is not subject to emissions or operating limitations in this subpart.

§63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5) of this section.

(2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

The engine is subject to paragraphs (a)(2) and (a)(5) of this section. The following condition (#19 on draft permit N-2246-8-4) enforce on-going compliance with this section:

- The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ]

Section (e) states that you must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE:

- (1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.
- (2) An existing stationary emergency RICE.
- (3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

The following condition (#18 on draft permit N-2246-8-4) enforce on-going compliance with this section:

- The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 40 CFR Part 63 Subpart ZZZZ]



§63.6660 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

The following condition (#21 on draft permit N-2246-8-4) enforce on-going compliance with this section:

- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ]

Compliance is expected with this subpart.

#### 9. **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.

| <b>Pollutant</b> | <b>Major Source Threshold<br/>(lb/year)</b> |
|------------------|---|
| VOC              | 20,000                                      |
| NO <sub>x</sub>  | 20,000                                      |
| CO               | 200,000                                     |
| PM <sub>10</sub> | 140,000                                     |
| SO <sub>x</sub>  | 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-2246-1-11: 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<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. However, the turbine is not equipped with any add-on control equipment and is not subject to CAM requirements.

a. **N-2246-2-11: 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<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. However, the turbine is not equipped with any add-on control equipment and is not subject to CAM requirements.

b. **N-2246-8-4: 170 BHP GENERAL MOTORS MODEL VORTEC PROPANE-FIRED EMERGENCY STANDBY IC ENGINE WITH 3-WAY CATALYST POWERING AN ELECTRICAL GENERATOR**

1. This unit has emission factors for all pollutants.
2. The engine is equipped with an add-on control for NO<sub>x</sub>, CO and VOC in the form of a Non-Selective catalytic Reduction (NSCR) system, and with Positive Crankcase Ventilation (PCV) or 90% efficient control device for VOC and PM<sub>10</sub> emissions.
3. The catalyst has control efficiencies of 90% for NO<sub>x</sub>, 80% for CO, and 50% for VOC (Update On Emissions - Form 960, Second Edition, Waukesha Engine Division, Dresser Industries, October, 1991). The PCV system reduces crankcase VOC and PM<sub>10</sub> emissions by at least 90% over an uncontrolled crankcase vent.

The controlled emission factors were taken from the current permit and the uncontrolled emission factors are calculated as given below:

| Uncontrolled Emission Factors |                             |                            |                                 |
|-------------------------------|-----------------------------|----------------------------|---------------------------------|
|                               | Controlled EF<br>(g/bhp-hr) | Control<br>Efficiency (CE) | Uncontrolled**<br>EF (g/bhp-hr) |
| NO <sub>x</sub>               | 2.3                         | 90%                        | 23.0                            |
| PM <sub>10</sub>              | 0.064                       | 90%                        | 0.64                            |
| CO                            | 15.3                        | 80%                        | 76.5                            |
| VOC                           | 0.54                        | 95%*                       | 10.8                            |

\*VOC emissions are controlled 50% by NSCR and 90% by PCV

\*\*Uncontrolled EF = (Controlled EF)/(1-CE)

| Pre-Control Potential to Emit |  |
|-------------------------------|--|
| NO <sub>x</sub>               | 23.0 (g/bhp-hr) x 170 (bhp) x 100 (hr/yr) ÷ 453.6 (g/lb) = 862 (lb/yr)   |
| PM <sub>10</sub>              | 0.64 (g/bhp-hr) x 170 (bhp) x 100 (hr/yr) ÷ 453.6 (g/lb) = 24 (lb/yr)    |
| CO                            | 76.5 (g/bhp-hr) x 170 (bhp) x 100 (hr/yr) ÷ 453.6 (g/lb) = 2,867 (lb/yr) |
| VOC                           | 10.08 (g/bhp-hr) x 170 (bhp) x 100 (hr/yr) ÷ 453.6 (g/lb) = 378 (lb/yr)  |

The pre-control potential to emit is not greater than the major source threshold of 20,000 lb-NO<sub>x</sub>/year, 140,000 lb-PM<sub>10</sub>/year, 20,000 lb-VOC/year, and 200,000 lb-CO/year as shown above. Therefore, this unit is not subject to CAM requirements.

**c. N-2246-9-4: 170 BHP GENERAL MOTORS INDUSTRIAL POWERTRAIN PROPANE/LPG-FIRED EMERGENCY STANDBY IC ENGINE WITH A JOHNSON MATTHEY MODEL BANDITO NON-SELECTIVE CATALYTIC REDUCTION (NSCR) SYSTEM POWERING AN ELECTRICAL GENERATOR**

1. This unit has emission factors for all pollutants.
2. The engine is equipped with an add-on control for NO<sub>x</sub>, CO and VOC in the form of a Non-Selective catalytic Reduction (NSCR) system, and with Positive Crankcase Ventilation (PCV) or 90% efficient control device for VOC and PM<sub>10</sub> emissions.
3. The catalyst has control efficiencies of 90% for NO<sub>x</sub>, 80% for CO, and 50% for VOC (Update On Emissions - Form 960, Second Edition, Waukesha Engine Division, Dresser Industries, October, 1991). The PCV system reduces crankcase VOC and PM<sub>10</sub> emissions by at least 90% over an uncontrolled crankcase vent.

The controlled emission factors were taken from the current permit and the uncontrolled emission factors are calculated as given below:

| Uncontrolled Emission Factors |                             |                            |                                 |
|-------------------------------|-----------------------------|----------------------------|---------------------------------|
|                               | Controlled EF<br>(g/bhp-hr) | Control<br>Efficiency (CE) | Uncontrolled**<br>EF (g/bhp-hr) |
| NO <sub>x</sub>               | 0.5                         | 90%                        | 5.0                             |
| PM <sub>10</sub>              | 0.076                       | 90%                        | 0.76                            |
| CO                            | 1.7                         | 80%                        | 8.5                             |
| VOC                           | 0.1                         | 95%*                       | 2                               |

\*VOC emissions are controlled 50% by NSCR and 90% by PCV

\*\*Uncontrolled EF = (Controlled EF)/(1-CE)

| Pre-Control Potential to Emit |      |              |     |         |     |                                      |
|-------------------------------|------|--------------|-----|---------|-----|--------------------------------------|
| NO <sub>x</sub>               | 5.0  | (g/bhp·hr) x | 170 | (bhp) x | 100 | (hr/yr) ÷ 453.6 (g/lb) = 187 (lb/yr) |
| PM <sub>10</sub>              | 0.76 | (g/bhp·hr) x | 170 | (bhp) x | 100 | (hr/yr) ÷ 453.6 (g/lb) = 29 (lb/yr)  |
| CO                            | 8.5  | (g/bhp·hr) x | 170 | (bhp) x | 100 | (hr/yr) ÷ 453.6 (g/lb) = 319 (lb/yr) |
| VOC                           | 2    | (g/bhp·hr) x | 170 | (bhp) x | 100 | (hr/yr) ÷ 453.6 (g/lb) = 75 (lb/yr)  |

The pre-control potential to emit is not greater than the major source threshold of 20,000 lb-NO<sub>x</sub>/year, 140,000 lb-PM<sub>10</sub>/year, 20,000 lb-VOC/year, and 200,000 lb-CO/year as shown above. Therefore, this unit is not subject to CAM requirements.

#### 10. 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-2246-0-4     | 28               |

**11. 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-2246-0-4     | 27               |

**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 39 and 40 of the facility-wide requirements (N-2246-0-4).

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

The applicant has not requested any change to 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

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# ATTACHMENT A

Draft Renewed Title V Operating Permit

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# *San Joaquin Valley*

## *Air Pollution Control District*

FACILITY: N-2246-0-4

EXPIRATION DATE: 09/30/2020

### **FACILITY-WIDE REQUIREMENTS**

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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: TURLOCK IRRIGATION DISTRICT  
Location: 325 S WASHINGTON RD, TURLOCK, CA 95380  
N-2246-0-4 : May 14 2021 1:47PM -- BRARG



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

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

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

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

34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
35. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
42. Facilities N-2246 and N-7172 are included in the same stationary source. [District Rule 2201] Federally Enforceable Through Title V Permit
43. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin November 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

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-2246-1-11

**EXPIRATION DATE:** 09/30/2020

**EQUIPMENT DESCRIPTION:**

TURBINE/GENERATOR SET #1, 25.8 MW GENERAL ELECTRIC FRAME 5, MODEL PG 5361, NATURAL GAS/FUEL OIL #2 FIRED

## PERMIT UNIT REQUIREMENTS

1. This unit is subject to the requirements of 40 CFR Part 60, Subpart GG: Standards of Performance for Stationary Gas Turbines. [District Rule 4001] Federally Enforceable Through Title V Permit
2. The owner shall monitor operational characteristics recommended by the turbine manufacturer or emission control system supplier. [District Rule 4703] Federally Enforceable Through Title V Permit
3. This unit shall be fired on only natural gas or fuel oil #2. The primary fuel shall be natural gas; fuel oil #2 shall be used as a backup fuel only in the event of a natural gas shortage. [District Rule 2201 and 40 CFR 60.331(r)] Federally Enforceable Through Title V Permit
4. This unit shall be fired only on natural gas with a sulfur content not exceeding 1.0 grain of sulfur compounds (as S) per 100 dry standard cubic feet of natural gas. If this is fired on PUC-regulated natural gas, compliance with this sulfur content limit may be demonstrated with fuel receipts. [District Rules 2201 and 4801; Stanislaus County Rule 407; and 40 CFR 60.333(b) and 334(h)(3)] Federally Enforceable Through Title V Permit
5. If this unit is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for eight 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 compliance is demonstrated for eight consecutive weeks. [40 CFR 60.334(h)] Federally Enforceable Through Title V Permit
6. The sulfur content of fuel oil shall be less than 0.05 percent by weight. [District Rules 4703 and 4801; Stanislaus County Rule 407; and 40 CFR 60.333(b)] Federally Enforceable Through Title V Permit
7. The sulfur content of the fuel oil shall be determined each time fuel is transferred into the on-site storage tank. [40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
8. The operation of this unit shall not exceed 200 hours during any calendar year. Operations during California Independent System Operator (ISO) declared or TID declared emergencies shall not count against the unit's 200 hr/yr operating limit, provided the unit is located in the local area transmission system of the emergency. Operation during a state of emergency declared by proclamation of the Governor also shall not count towards this 200 hr/yr operating limit when the unit is located in the specific geographic location identified in the proclamation. [District Rule 4703] Federally Enforceable Through Title V Permit
9. Total operation of this unit, excluding operation during a state of emergency declared by proclamation of the Governor and when the unit is located in the specific geographic location identified in the proclamation, shall not exceed 877 hours during any calendar year. [District Rule 4703] Federally Enforceable Through Title V Permit
10. No later than April 1 each year, the owner shall pay a fee to the District, calculated in accordance with Section 5.1.3.3.2 of Rule 4703, for operations during an ISO-declared or TID - declared emergency, provided these operating hours are not being counted towards the 200 hr/yr operating limit. [District Rule 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. When firing on natural gas, NO<sub>x</sub> (referenced as NO<sub>2</sub>) emissions shall not exceed 25.0 ppmvd @ 15% O<sub>2</sub>, except during transitional operation period. Emissions shall be averaged over a three-hour period, using consecutive 15-minute sampling periods. [District Rules 2201 and 4703; and 40 CFR 60.332(b) and 334(j)] Federally Enforceable Through Title V Permit
12. When firing on fuel oil, the NO<sub>x</sub> (referenced as NO<sub>2</sub>) emissions shall not exceed 42.0 ppmvd @ 15% O<sub>2</sub> and 51 lb/hr, except during transitional operation period. Emissions shall be averaged over a three-hour period, using consecutive 15-minute sampling periods. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
13. The NO<sub>x</sub> emission concentration shall not exceed 42 ppmvd @ 15% O<sub>2</sub> except during transitional operation period, and the NO<sub>x</sub> emission rate shall not exceed 51 pounds in any one hour. [District Rules 2201 and 4703; and 40 CFR 60.332(b) and 334(j)] Federally Enforceable Through Title V Permit
14. The combined NO<sub>x</sub> emissions from permit units N-2246-1 and N-2246-2 shall not exceed 1,020 lb/day and shall not exceed 25,551 lb/quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
15. When firing on either natural gas or fuel oil, CO emissions shall not exceed 200 ppmvd @ 15% O<sub>2</sub>, except during transitional operation period. Emissions shall be averaged over a three-hour period, using consecutive 15-minute sampling periods. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
16. The cumulative annual CO emissions from permit units N-2246-1 and N-2246-2 shall be less than 200,000 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. When firing on either natural gas or fuel oil, VOC emissions shall not exceed 15.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
18. {2256} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
19. When firing on natural gas, PM<sub>10</sub> emissions shall not exceed 8.60 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
20. When firing on fuel oil, PM<sub>10</sub> emissions shall not exceed 20.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The combined PM<sub>10</sub> emissions from permit units N-2246-1 and N-2246-2 shall not exceed 150 pounds during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The annual PM<sub>10</sub> emissions shall not exceed 7,016 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. When firing on natural gas, SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
24. When firing on fuel oil, SO<sub>x</sub> emissions shall not exceed 16.37 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
25. In the event of a natural gas shortage, SO<sub>x</sub> emissions from permit units N-2246-1 and N-2246-2 shall not exceed 5,950 pounds during any one month. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Source testing to demonstrate ongoing compliance with the NO<sub>x</sub> and CO emission limits for natural gas fuel shall be conducted at least once per 24-month period provided that the unit is operated for a total of less than 877 hours per year. Otherwise, the source testing shall be conducted annually. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
27. Source testing to demonstrate compliance with the NO<sub>x</sub> and CO emission limits for fuel oil shall be conducted within 30 days of operation on that fuel, unless the unit successfully demonstrated compliance with the NO<sub>x</sub> and CO emission limits for fuel oil within the previous 24 months. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
30. 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<sub>x</sub>, CO, and O<sub>2</sub> 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
31. NO<sub>x</sub> emissions (referenced as NO<sub>2</sub>) shall be determined using EPA Method 7E or EPA Method 20. The test results shall be corrected to ISO standard conditions as defined in 40 CFR Part 60 Subpart GG Section 60.335. [District Rules 1081, 4001, and 4703] Federally Enforceable Through Title V Permit
32. CO emissions shall be determined using EPA method 10 or EPA method 10B. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
33. Oxygen content of the exhaust gas shall be determined by using EPA method 3, EPA method 3A, or EPA method 20. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
34. The owner or operator shall install, operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation of the turbine, and the fuel consumption and the ratio of water to fuel being fired in the turbine. The system shall be accurate to within + 5% and shall be approved by the administrator. [40 CFR 60.334(a) and (g)] Federally Enforceable Through Title V Permit
35. The steam or water to fuel ratio or other parameters that are continuously monitored, shall be monitored during the performance test required under §60.8, to establish acceptable values and ranges. The owner or operator may supplement the performance test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant information to define the acceptable parametric ranges more precisely. The owner or operator shall develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NO<sub>x</sub> emission controls. The plan shall include the parameter(s) monitored and the acceptable range(s) of the parameter(s) as well as the basis for designating the parameter(s) and acceptable range(s). Any supplemental data such as engineering analyses, design specifications, manufacturer's recommendations and other relevant information shall be included in the monitoring plan. [District Rule 4703; 40 CFR 60.334(g); and 40 CFR 60.7(c)] Federally Enforceable Through Title V Permit
36. The owner or operator shall report periods of excess emissions that are defined as follows: any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NO<sub>x</sub> emission limit. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, and gas turbine load. [40 CFR 60.334(j)(1)] Federally Enforceable Through Title V Permit
37. The continuous monitor of fuel, water, and water-to-fuel ratio system shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the NO<sub>x</sub> emission limits at 30, 50, 75, and 100% of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer. [District Rule 4703; 40 CFR 60.344(g) and (j)(1), 335(b) and (c); and 40 CFR 60.13(a)] Federally Enforceable Through Title V Permit
38. The owner shall maintain a stationary gas turbine system operating log that includes: the actual local start-up and stop time; length and reason for reduced load periods; total hours of operation on each fuel, and type and quantity of each fuel used. These records shall be updated daily. [District Rules 2201 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.

39. The owner shall maintain a log that shows the following: (a). The combined daily NOx emissions from permit units N-2246-1 and N-2246-2; (b). The combined daily PM10 emissions from permit units N-2246-1 and N-2246-2; (c). The cumulative quarterly NOx emissions from permit units N-2246-1 and N-2246-2; (d). The cumulative annual PM10 emissions from this permit unit (N-2246-1). This log shall contain each calculated emission quantity as well as each process variable used in the respective calculations. [District Rule 2201] Federally Enforceable Through Title V Permit
40. The owner or operator shall determine compliance with the sulfur content standard using the following methods: ASTM D129, D2622, D4294, D1266, D5453, D1552, D4084, D5504, D6228, or Gas Processors Association Standard 2377. [40 CFR 60.334(h)(1) and 335(b)(10)] Federally Enforceable Through Title V Permit
41. Transitional Operation Period shall be defined as any of the following periods: bypass transition period, primary re-ignition period, reduced load period, start-up or shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
42. Start-up shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit
43. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit
44. The duration of each startup or shutdown shall not exceed two hours. [District Rule 4703] Federally Enforceable Through Title V Permit
45. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during each transitional operation period. [District Rule 4703] Federally Enforceable Through Title V Permit
46. The operator performing start-up or shutdown of a unit shall keep records of the duration of startup or shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
47. The owner or operator shall maintain a stationary gas turbine system operating log, which identifies the date, start time, and end time that the unit was operated pursuant to Section 5.1.3.3 of Rule 4703 (9/20/07); a copy of the ISO or TID emergency declaration for that operation; and a copy of the information used to determine the applicable annual emission fee. [District Rule 4703] Federally Enforceable Through Title V Permit
48. The owner or operator shall maintain a stationary gas turbine system operating log, which identifies the date, start time, and end time that the unit was operated during a state of emergency, when such emergency is declared by proclamation of the Governor and the unit is located in the specific geographic location identified in the proclamation. [District Rule 4703] Federally Enforceable Through Title V Permit
49. All records shall be retained for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 2201 and 4703] 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-2246-2-11

**EXPIRATION DATE:** 09/30/2020

**EQUIPMENT DESCRIPTION:**

TURBINE/GENERATOR SET #2, 25.8 MW GENERAL ELECTRIC FRAME 5, MODEL PG 5361, NATURAL GAS/FUEL OIL #2 FIRED

## PERMIT UNIT REQUIREMENTS

1. This unit is subject to the requirements of 40 CFR Part 60, Subpart GG: Standards of Performance for Stationary Gas Turbines. [District Rule 4001] Federally Enforceable Through Title V Permit
2. The owner shall monitor operational characteristics recommended by the turbine manufacturer or emission control system supplier. [District Rule 4703] Federally Enforceable Through Title V Permit
3. This unit shall be fired on only natural gas or fuel oil #2. The primary fuel shall be natural gas; fuel oil #2 shall be used as a backup fuel only in the event of a natural gas shortage. [District Rule 2201 and 40 CFR 60.331(r)] Federally Enforceable Through Title V Permit
4. This unit shall be fired only on natural gas with a sulfur content not exceeding 1.0 grain of sulfur compounds (as S) per 100 dry standard cubic feet of natural gas. If this is fired on PUC-regulated natural gas, compliance with this sulfur content limit may be demonstrated with fuel receipts. [District Rules 2201 and 4801; Stanislaus County Rule 407; and 40 CFR 60.333(b) and 334(h)(3)] Federally Enforceable Through Title V Permit
5. If this unit is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for eight 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 compliance is demonstrated for eight consecutive weeks. [40 CFR 60.334(h)] Federally Enforceable Through Title V Permit
6. The sulfur content of fuel oil shall be less than 0.05 percent by weight. [District Rules 4703 and 4801; Stanislaus County Rule 407; and 40 CFR 60.333(b)] Federally Enforceable Through Title V Permit
7. The sulfur content of the fuel oil shall be determined each time fuel is transferred into the on-site storage tank. [40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
8. The operation of this unit shall not exceed 200 hours during any calendar year. Operations during California Independent System Operator (ISO) declared or TID declared emergencies shall not count against the unit's 200 hr/yr operating limit, provided the unit is located in the local area transmission system of the emergency. Operation during a state of emergency declared by proclamation of the Governor also shall not count towards this 200 hr/yr operating limit when the unit is located in the specific geographic location identified in the proclamation. [District Rule 4703] Federally Enforceable Through Title V Permit
9. Total operation of this unit, excluding operation during a state of emergency declared by proclamation of the Governor and when the unit is located in the specific geographic location identified in the proclamation, shall not exceed 877 hours during any calendar year. [District Rule 4703] Federally Enforceable Through Title V Permit
10. No later than April 1 each year, the owner shall pay a fee to the District, calculated in accordance with Section 5.1.3.3.2 of Rule 4703, for operations during an ISO-declared or TID - declared emergency, provided these operating hours are not being counted towards the 200 hr/yr operating limit. [District Rule 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. When firing on natural gas, NO<sub>x</sub> (referenced as NO<sub>2</sub>) emissions shall not exceed 25.0 ppmvd @ 15% O<sub>2</sub>, except during transitional operation period. Emissions shall be averaged over a three-hour period, using consecutive 15-minute sampling periods. [District Rules 2201 and 4703; and 40 CFR 60.332(b) and 334(j)] Federally Enforceable Through Title V Permit
12. When firing on fuel oil, the NO<sub>x</sub> (referenced as NO<sub>2</sub>) emissions shall not exceed 42.0 ppmvd @ 15% O<sub>2</sub> and 51 lb/hr, except during transitional operation period. Emissions shall be averaged over a three-hour period, using consecutive 15-minute sampling periods. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
13. The NO<sub>x</sub> emission concentration shall not exceed 42 ppmvd @ 15% O<sub>2</sub> except during transitional operation period, and the NO<sub>x</sub> emission rate shall not exceed 51 pounds in any one hour. [District Rules 2201 and 4703; and 40 CFR 60.332(b) and 334(j)] Federally Enforceable Through Title V Permit
14. The combined NO<sub>x</sub> emissions from permit units N-2246-1 and N-2246-2 shall not exceed 1,020 lb/day and shall not exceed 25,551 lb/quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
15. When firing on either natural gas or fuel oil, CO emissions shall not exceed 200 ppmvd @ 15% O<sub>2</sub>, except during transitional operation period. Emissions shall be averaged over a three-hour period, using consecutive 15-minute sampling periods. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
16. The cumulative annual CO emissions from permit units N-2246-1 and N-2246-2 shall be less than 200,000 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. When firing on either natural gas or fuel oil, VOC emissions shall not exceed 15.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
18. {2256} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
19. When firing on natural gas, PM<sub>10</sub> emissions shall not exceed 8.60 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
20. When firing on fuel oil, PM<sub>10</sub> emissions shall not exceed 20.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The combined PM<sub>10</sub> emissions from permit units N-2246-1 and N-2246-2 shall not exceed 150 pounds during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The annual PM<sub>10</sub> emissions shall not exceed 7,016 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. When firing on natural gas, SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
24. When firing on fuel oil, SO<sub>x</sub> emissions shall not exceed 16.37 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
25. In the event of a natural gas shortage, SO<sub>x</sub> emissions from permit units N-2246-1 and N-2246-2 shall not exceed 5,950 pounds during any one month. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Source testing to demonstrate ongoing compliance with the NO<sub>x</sub> and CO emission limits for natural gas fuel shall be conducted at least once per 24-month period provided that the unit is operated for a total of less than 877 hours per year. Otherwise, the source testing shall be conducted annually. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
27. Source testing to demonstrate compliance with the NO<sub>x</sub> and CO emission limits for fuel oil shall be conducted within 30 days of operation on that fuel, unless the unit successfully demonstrated compliance with the NO<sub>x</sub> and CO emission limits for fuel oil within the previous 24 months. [District Rules 2201 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.

28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
30. 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<sub>x</sub>, CO, and O<sub>2</sub> 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
31. NO<sub>x</sub> emissions (referenced as NO<sub>2</sub>) shall be determined using EPA Method 7E or EPA Method 20. The test results shall be corrected to ISO standard conditions as defined in 40 CFR Part 60 Subpart GG Section 60.335. [District Rules 1081, 4001, and 4703] Federally Enforceable Through Title V Permit
32. CO emissions shall be determined using EPA method 10 or EPA method 10B. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
33. Oxygen content of the exhaust gas shall be determined by using EPA method 3, EPA method 3A, or EPA method 20. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
34. The owner or operator shall install, operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation of the turbine, and the fuel consumption and the ratio of water to fuel being fired in the turbine. The system shall be accurate to within + 5% and shall be approved by the administrator. [40 CFR 60.334(a) and (g)] Federally Enforceable Through Title V Permit
35. The steam or water to fuel ratio or other parameters that are continuously monitored, shall be monitored during the performance test required under §60.8, to establish acceptable values and ranges. The owner or operator may supplement the performance test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant information to define the acceptable parametric ranges more precisely. The owner or operator shall develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NO<sub>x</sub> emission controls. The plan shall include the parameter(s) monitored and the acceptable range(s) of the parameter(s) as well as the basis for designating the parameter(s) and acceptable range(s). Any supplemental data such as engineering analyses, design specifications, manufacturer's recommendations and other relevant information shall be included in the monitoring plan. [District Rule 4703; 40 CFR 60.334(g); and 40 CFR 60.7(c)] Federally Enforceable Through Title V Permit
36. The owner or operator shall report periods of excess emissions that are defined as follows: any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NO<sub>x</sub> emission limit. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, and gas turbine load. [40 CFR 60.334(j)(1)] Federally Enforceable Through Title V Permit
37. The continuous monitor of fuel, water, and water-to-fuel ratio system shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the NO<sub>x</sub> emission limits at 30, 50, 75, and 100% of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer. [District Rule 4703; 40 CFR 60.344(g) and (j)(1), 335(b) and (c); and 40 CFR 60.13(a)] Federally Enforceable Through Title V Permit
38. The owner shall maintain a stationary gas turbine system operating log that includes: the actual local start-up and stop time; length and reason for reduced load periods; total hours of operation on each fuel, and type and quantity of each fuel used. These records shall be updated daily. [District Rules 2201 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.

39. The owner shall maintain a log that shows the following: (a). The combined daily NO<sub>x</sub> emissions from permit units N-2246-1 and N-2246-2; (b). The combined daily PM<sub>10</sub> emissions from permit units N-2246-1 and N-2246-2; (c). The cumulative quarterly NO<sub>x</sub> emissions from permit units N-2246-1 and N-2246-2; (d). The cumulative annual PM<sub>10</sub> emissions from this permit unit (N-2246-1). This log shall contain each calculated emission quantity as well as each process variable used in the respective calculations. [District Rule 2201] Federally Enforceable Through Title V Permit
40. The owner or operator shall determine compliance with the sulfur content standard using the following methods: ASTM D129, D2622, D4294, D1266, D5453, D1552, D4084, D5504, D6228, or Gas Processors Association Standard 2377. [40 CFR 60.334(h)(1) and 335(b)(10)] Federally Enforceable Through Title V Permit
41. Transitional Operation Period shall be defined as any of the following periods: bypass transition period, primary re-ignition period, reduced load period, start-up or shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
42. Start-up shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit
43. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit
44. The duration of each startup or shutdown shall not exceed two hours. [District Rule 4703] Federally Enforceable Through Title V Permit
45. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during each transitional operation period. [District Rule 4703] Federally Enforceable Through Title V Permit
46. The operator performing start-up or shutdown of a unit shall keep records of the duration of startup or shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
47. The owner or operator shall maintain a stationary gas turbine system operating log, which identifies the date, start time, and end time that the unit was operated pursuant to Section 5.1.3.3 of Rule 4703 (9/20/07); a copy of the ISO or TID emergency declaration for that operation; and a copy of the information used to determine the applicable annual emission fee. [District Rule 4703]
48. The owner or operator shall maintain a stationary gas turbine system operating log, which identifies the date, start time, and end time that the unit was operated during a state of emergency, when such emergency is declared by proclamation of the Governor and the unit is located in the specific geographic location identified in the proclamation. [District Rule 4703] Federally Enforceable Through Title V Permit
49. All records shall be retained for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 2201 and 4703] 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-2246-8-4

**EXPIRATION DATE:** 09/30/2020

**EQUIPMENT DESCRIPTION:**

170 BHP GENERAL MOTORS MODEL VORTEC PROPANE-FIRED EMERGENCY STANDBY IC ENGINE WITH 3-WAY CATALYST POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. This engine shall only be fired on LPG or propane. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
4. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
5. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational non-selective catalyst installed on the exhaust stack. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternative device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. The owner or operator shall maintain these required meters in proper operating condition. The fuel meter shall be calibrated periodically per the recommendations of the manufacturer. [District Rules 2201 and 4702, and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
8. Emissions from the engine shall not exceed any of the following limits: 2.3 g-NOx/bhp-hr, 0.064 g-PM10/bhp-hr, 15.3 g-CO/bhp-hr, 0.54 g-VOC/bhp-hr, or 0.0164 lb-SOx/MMBtu. [District Rules 2201 and 4801, and Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
9. This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
10. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. The owner or operator has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
12. The engine's spark plugs shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
13. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
14. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
15. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
16. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
17. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
18. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702] Federally Enforceable Through Title V Permit
21. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] 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-2246-9-4

**EXPIRATION DATE:** 09/30/2020

**EQUIPMENT DESCRIPTION:**

170 BHP GENERAL MOTORS INDUSTRIAL POWERTRAIN PROPANE/LPG-FIRED EMERGENCY STANDBY IC ENGINE WITH A JOHNSON MATTHEY MODEL BANDITO NON-SELECTIVE CATALYTIC REDUCTION (NSCR) SYSTEM POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The exhaust stack shall have a flapper-type rain cap and shall vent vertically upward. The vertical exhaust flow shall not be impeded by roof overhang or any other obstruction. [District Rule 4102]
3. This engine shall only be fired on LPG or propane. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
5. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with either a positive crankcase ventilation system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
7. NOx emissions from the exhaust of the NSCR system shall not exceed 0.5 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. SOx emissions from the exhaust of the NSCR system shall not exceed 0.067 g/bhp-hr. [District Rules 2201 and 4801, and Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
9. PM10 emissions from the exhaust of the NSCR system shall not exceed 0.076 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. CO emissions from the exhaust of the NSCR system shall not exceed 1.7 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. VOC emissions from the exhaust of the NSCR system shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702] Federally Enforceable Through Title V Permit
13. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] 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.

14. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
15. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702] Federally Enforceable Through Title V Permit
17. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702] Federally Enforceable Through Title V Permit
18. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

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

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# ATTACHMENT B

Previous Title V Operating Permit

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# *San Joaquin Valley*

## *Air Pollution Control District*

**FACILITY:** N-2246-0-3

**EXPIRATION DATE:** 09/30/2020

### **FACILITY-WIDE REQUIREMENTS**

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1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: TURLOCK IRRIGATION DISTRICT  
Location: 325 S WASHINGTON RD, TURLOCK, CA 95380  
N-2246-0-3 : May 14 2021 1:47PM -- BRARG

10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
42. Facilities N-2246 and N-7172 are included in the same stationary source. [District Rule 2201] Federally Enforceable Through Title V Permit
43. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin on November 1st 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

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

# *San Joaquin Valley*

## *Air Pollution Control District*

**PERMIT UNIT:** N-2246-1-10

**EXPIRATION DATE:** 09/30/2020

**EQUIPMENT DESCRIPTION:**

TURBINE/GENERATOR SET #1, 25.8 MW GENERAL ELECTRIC FRAME 5, MODEL PG 5361, NATURAL GAS/FUEL OIL #2 FIRED

### **PERMIT UNIT REQUIREMENTS**

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1. This unit is subject to the requirements of 40 CFR Part 60, Subpart GG: Standards of Performance for Stationary Gas Turbines. [District Rule 4001] Federally Enforceable Through Title V Permit
2. The owner shall monitor operational characteristics recommended by the turbine manufacturer or emission control system supplier. [District Rule 4703] Federally Enforceable Through Title V Permit
3. This unit shall be fired on only natural gas or fuel oil #2. The primary fuel shall be natural gas; fuel oil #2 shall be used as a backup fuel only in the event of a natural gas shortage. [District Rule 2201 and 40 CFR 60.331(r)] Federally Enforceable Through Title V Permit
4. This unit shall be fired only on natural gas with a sulfur content not exceeding 1.0 grain of sulfur compounds (as S) per 100 dry standard cubic feet of natural gas. If this is fired on PUC-regulated natural gas, compliance with this sulfur content limit may be demonstrated with fuel receipts. [District Rules 2201 and 4801, Stanislaus County Rule 407, and 40 CFR 60.333(b), 334(h)(3)] Federally Enforceable Through Title V Permit
5. If this unit is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for eight 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 compliance is demonstrated for eight consecutive weeks. [40 CFR 60.334(h)] Federally Enforceable Through Title V Permit
6. The sulfur content of fuel oil shall be less than 0.05 percent by weight. [District Rules 4703 and 4801, Stanislaus County Rule 407, and 40 CFR 60.333(b)] Federally Enforceable Through Title V Permit
7. The sulfur content of the fuel oil shall be determined each time fuel is transferred into the on-site storage tank. [40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
8. The operation of this unit shall not exceed 200 hours during any calendar year. Operations during California Independent System Operator (ISO) declared or TID declared emergencies shall not count against the unit's 200 hr/yr operating limit, provided the unit is located in the local area transmission system of the emergency. Operation during a state of emergency declared by proclamation of the Governor also shall not count towards this 200 hr/yr operating limit when the unit is located in the specific geographic location identified in the proclamation. [District Rule 4703] Federally Enforceable Through Title V Permit
9. Total operation of this unit, excluding operation during a state of emergency declared by proclamation of the Governor and when the unit is located in the specific geographic location identified in the proclamation, shall not exceed 877 hours during any calendar year. [District Rule 4703] Federally Enforceable Through Title V Permit
10. No later than April 1 each year, the owner shall pay a fee to the District, calculated in accordance with Section 5.1.3.3.2 of Rule 4703, for operations during an ISO-declared or TID - declared emergency, provided these operating hours are not being counted towards the 200 hr/yr operating limit. [District Rule 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. When firing on natural gas, NO<sub>x</sub> (referenced as NO<sub>2</sub>) emissions shall not exceed 25.0 ppmvd @ 15% O<sub>2</sub>, except during transitional operation period. Emissions shall be averaged over a three-hour period, using consecutive 15-minute sampling periods. [District Rules 2201 and 4703, and 40 CFR 60.332(b), 334(j)] Federally Enforceable Through Title V Permit
12. When firing on fuel oil, the NO<sub>x</sub> (referenced as NO<sub>2</sub>) emissions shall not exceed 42.0 ppmvd @ 15% O<sub>2</sub> and 51 lb/hr, except during transitional operation period. Emissions shall be averaged over a three-hour period, using consecutive 15-minute sampling periods. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
13. The NO<sub>x</sub> emission concentration shall not exceed 42 ppmvd @ 15% O<sub>2</sub> except during transitional operation period, and the NO<sub>x</sub> emission rate shall not exceed 51 pounds in any one hour. [District Rules 2201 and 4703, and 40 CFR 60.332(b), 334(j)] Federally Enforceable Through Title V Permit
14. The combined NO<sub>x</sub> emissions from permit units N-2246-1 and N-2246-2 shall not exceed 1,020 lb/day and shall not exceed 25,551 lb/quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
15. When firing on either natural gas or fuel oil, CO emissions shall not exceed 200 ppmvd @ 15% O<sub>2</sub>, except during transitional operation period. Emissions shall be averaged over a three-hour period, using consecutive 15-minute sampling periods. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
16. The cumulative annual CO emissions from permit units N-2246-1 and N-2246-2 shall be less than 200,000 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. When firing on either natural gas or fuel oil, VOC emissions shall not exceed 15.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
19. When firing on natural gas, PM<sub>10</sub> emissions shall not exceed 8.60 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
20. When firing on fuel oil, PM<sub>10</sub> emissions shall not exceed 20.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The combined PM<sub>10</sub> emissions from permit units N-2246-1 and N-2246-2 shall not exceed 150 pounds during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The annual PM<sub>10</sub> emissions shall not exceed 7,016 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. When firing on natural gas, SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
24. When firing on fuel oil, SO<sub>x</sub> emissions shall not exceed 16.37 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
25. In the event of a natural gas shortage, SO<sub>x</sub> emissions from permit units N-2246-1 and N-2246-2 shall not exceed 5,950 pounds during any one month. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Source testing to demonstrate ongoing compliance with the NO<sub>x</sub> and CO emission limits for natural gas fuel shall be conducted at least once per 24-month period provided that the unit is operated for a total of less than 877 hours per year. Otherwise, the source testing shall be conducted annually. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
27. Source testing to demonstrate compliance with the NO<sub>x</sub> and CO emission limits for fuel oil shall be conducted within 30 days of operation on that fuel, unless the unit successfully demonstrated compliance with the NO<sub>x</sub> and CO emission limits for fuel oil within the previous 24 months. [District Rules 2201 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.

28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
30. 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<sub>x</sub>, CO, and O<sub>2</sub> 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
31. NO<sub>x</sub> emissions (referenced as NO<sub>2</sub>) shall be determined using EPA Method 7E or EPA Method 20. The test results shall be corrected to ISO standard conditions as defined in 40 CFR Part 60 Subpart GG Section 60.335. [District Rules 1081, 4001 and 4703] Federally Enforceable Through Title V Permit
32. CO emissions shall be determined using EPA method 10 or EPA method 10B. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
33. Oxygen content of the exhaust gas shall be determined by using EPA method 3, EPA method 3A, or EPA method 20. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
34. The owner or operator shall install, operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation of the turbine, and the fuel consumption and the ratio of water to fuel being fired in the turbine. The system shall be accurate to within + 5% and shall be approved by the administrator. [40 CFR 60.334(a) and (g)] Federally Enforceable Through Title V Permit
35. The steam or water to fuel ratio or other parameters that are continuously monitored, shall be monitored during the performance test required under §60.8, to establish acceptable values and ranges. The owner or operator may supplement the performance test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant information to define the acceptable parametric ranges more precisely. The owner or operator shall develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NO<sub>x</sub> emission controls. The plan shall include the parameter(s) monitored and the acceptable range(s) of the parameter(s) as well as the basis for designating the parameter(s) and acceptable range(s). Any supplemental data such as engineering analyses, design specifications, manufacturer's recommendations and other relevant information shall be included in the monitoring plan. [District Rule 4703, 40 CFR 60.334(g) and 60.7(c)] Federally Enforceable Through Title V Permit
36. The owner or operator shall report periods of excess emissions that are defined as follows: any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NO<sub>x</sub> emission limit. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, and gas turbine load. [40 CFR 60.334(j)(1)] Federally Enforceable Through Title V Permit
37. The continuous monitor of fuel, water, and water-to-fuel ratio system shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the NO<sub>x</sub> emission limits at 30, 50, 75, and 100% of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer. [District Rule 4703, and 40 CFR 60.344(g), (j)(1), 335(b) and (c), and 40 CFR 60.13(a)] Federally Enforceable Through Title V Permit
38. The owner shall maintain a stationary gas turbine system operating log that includes: the actual local start-up and stop time; length and reason for reduced load periods; total hours of operation on each fuel, and type and quantity of each fuel used. These records shall be updated daily. [District Rules 2201 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.

39. The owner shall maintain a log that shows the following: (a). The combined daily NOx emissions from permit units N-2246-1 and N-2246-2; (b). The combined daily PM10 emissions from permit units N-2246-1 and N-2246-2; (c). The cumulative quarterly NOx emissions from permit units N-2246-1 and N-2246-2; (d). The cumulative annual PM10 emissions from this permit unit (N-2246-1). This log shall contain each calculated emission quantity as well as each process variable used in the respective calculations. [District Rule 2201] Federally Enforceable Through Title V Permit
40. The owner or operator shall determine compliance with the sulfur content standard using the following methods: ASTM D129, D2622, D4294, D1266, D5453, D1552, D4084, D5504, D6228, or Gas Processors Association Standard 2377. [40 CFR 60.334(h)(1), 335(b)(10)] Federally Enforceable Through Title V Permit
41. Transitional Operation Period shall be defined as any of the following periods: bypass transition period, primary re-ignition period, reduced load period, start-up or shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
42. Start-up shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit
43. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit
44. The duration of each startup or shutdown shall not exceed two hours. [District Rule 4703] Federally Enforceable Through Title V Permit
45. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during each transitional operation period. [District Rule 4703] Federally Enforceable Through Title V Permit
46. The operator performing start-up or shutdown of a unit shall keep records of the duration of startup or shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
47. The owner or operator shall maintain a stationary gas turbine system operating log, which identifies the date, start time, and end time that the unit was operated pursuant to Section 5.1.3.3 of Rule 4703 (9/20/07); a copy of the ISO or TID emergency declaration for that operation; and a copy of the information used to determine the applicable annual emission fee. [District Rule 4703] Federally Enforceable Through Title V Permit
48. The owner or operator shall maintain a stationary gas turbine system operating log, which identifies the date, start time, and end time that the unit was operated during a state of emergency, when such emergency is declared by proclamation of the Governor and the unit is located in the specific geographic location identified in the proclamation. [District Rule 4703] Federally Enforceable Through Title V Permit
49. All records shall be retained for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 2201 and 4703] 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-2246-2-10

**EXPIRATION DATE:** 09/30/2020

**EQUIPMENT DESCRIPTION:**

TURBINE/GENERATOR SET #2, 25.8 MW GENERAL ELECTRIC FRAME 5, MODEL PG 5361, NATURAL GAS/FUEL OIL #2 FIRED

### **PERMIT UNIT REQUIREMENTS**

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1. This unit is subject to the requirements of 40 CFR Part 60, Subpart GG: Standards of Performance for Stationary Gas Turbines. [District Rule 4001] Federally Enforceable Through Title V Permit
2. The owner shall monitor operational characteristics recommended by the turbine manufacturer or emission control system supplier. [District Rule 4703] Federally Enforceable Through Title V Permit
3. This unit shall be fired on only natural gas or fuel oil #2. The primary fuel shall be natural gas; fuel oil #2 shall be used as a backup fuel only in the event of a natural gas shortage. [District Rule 2201 and 40 CFR 60.331(r)] Federally Enforceable Through Title V Permit
4. This unit shall be fired only on natural gas with a sulfur content not exceeding 1.0 grain of sulfur compounds (as S) per 100 dry standard cubic feet of natural gas. If this is fired on PUC-regulated natural gas, compliance with this sulfur content limit may be demonstrated with fuel receipts. [District Rules 2201 and 4801, Stanislaus County Rule 407, and 40 CFR 60.333(b), 334(h)(3)] Federally Enforceable Through Title V Permit
5. If this unit is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for eight 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 compliance is demonstrated for eight consecutive weeks. [40 CFR 60.334(h)] Federally Enforceable Through Title V Permit
6. The sulfur content of fuel oil shall be less than 0.05 percent by weight. [District Rules 4703 and 4801, Stanislaus County Rule 407, and 40 CFR 60.333(b)] Federally Enforceable Through Title V Permit
7. The sulfur content of the fuel oil shall be determined each time fuel is transferred into the on-site storage tank. [40 CFR 60.334(i)] Federally Enforceable Through Title V Permit
8. The operation of this unit shall not exceed 200 hours during any calendar year. Operations during California Independent System Operator (ISO) declared or TID declared emergencies shall not count against the unit's 200 hr/yr operating limit, provided the unit is located in the local area transmission system of the emergency. Operation during a state of emergency declared by proclamation of the Governor also shall not count towards this 200 hr/yr operating limit when the unit is located in the specific geographic location identified in the proclamation. [District Rule 4703] Federally Enforceable Through Title V Permit
9. Total operation of this unit, excluding operation during a state of emergency declared by proclamation of the Governor and when the unit is located in the specific geographic location identified in the proclamation, shall not exceed 877 hours during any calendar year. [District Rule 4703] Federally Enforceable Through Title V Permit
10. No later than April 1 each year, the owner shall pay a fee to the District, calculated in accordance with Section 5.1.3.3.2 of Rule 4703, for operations during an ISO-declared or TID - declared emergency, provided these operating hours are not being counted towards the 200 hr/yr operating limit. [District Rule 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. When firing on natural gas, NO<sub>x</sub> (referenced as NO<sub>2</sub>) emissions shall not exceed 25.0 ppmvd @ 15% O<sub>2</sub>, except during transitional operation period. Emissions shall be averaged over a three-hour period, using consecutive 15-minute sampling periods. [District Rules 2201 and 4703, and 40 CFR 60.332(b), 334(j)] Federally Enforceable Through Title V Permit
12. When firing on fuel oil, the NO<sub>x</sub> (referenced as NO<sub>2</sub>) emissions shall not exceed 42.0 ppmvd @ 15% O<sub>2</sub> and 51 lb/hr, except during transitional operation period. Emissions shall be averaged over a three-hour period, using consecutive 15-minute sampling periods. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
13. The NO<sub>x</sub> emission concentration shall not exceed 42 ppmvd @ 15% O<sub>2</sub> except during transitional operation period, and the NO<sub>x</sub> emission rate shall not exceed 51 pounds in any one hour. [District Rules 2201 and 4703, and 40 CFR 60.332(b), 334(j)] Federally Enforceable Through Title V Permit
14. The combined NO<sub>x</sub> emissions from permit units N-2246-1 and N-2246-2 shall not exceed 1,020 lb/day and shall not exceed 25,551 lb/quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
15. When firing on either natural gas or fuel oil, CO emissions shall not exceed 200 ppmvd @ 15% O<sub>2</sub>, except during transitional operation period. Emissions shall be averaged over a three-hour period, using consecutive 15-minute sampling periods. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
16. The cumulative annual CO emissions from permit units N-2246-1 and N-2246-2 shall be less than 200,000 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. When firing on either natural gas or fuel oil, VOC emissions shall not exceed 15.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
19. When firing on natural gas, PM<sub>10</sub> emissions shall not exceed 8.60 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
20. When firing on fuel oil, PM<sub>10</sub> emissions shall not exceed 20.00 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The combined PM<sub>10</sub> emissions from permit units N-2246-1 and N-2246-2 shall not exceed 150 pounds during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The annual PM<sub>10</sub> emissions shall not exceed 7,016 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. When firing on natural gas, SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
24. When firing on fuel oil, SO<sub>x</sub> emissions shall not exceed 16.37 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
25. In the event of a natural gas shortage, SO<sub>x</sub> emissions from permit units N-2246-1 and N-2246-2 shall not exceed 5,950 pounds during any one month. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Source testing to demonstrate ongoing compliance with the NO<sub>x</sub> and CO emission limits for natural gas fuel shall be conducted at least once per 24-month period provided that the unit is operated for a total of less than 877 hours per year. Otherwise, the source testing shall be conducted annually. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
27. Source testing to demonstrate compliance with the NO<sub>x</sub> and CO emission limits for fuel oil shall be conducted within 30 days of operation on that fuel, unless the unit successfully demonstrated compliance with the NO<sub>x</sub> and CO emission limits for fuel oil within the previous 24 months. [District Rules 2201 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.

28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
30. 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<sub>x</sub>, CO, and O<sub>2</sub> 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
31. NO<sub>x</sub> emissions (referenced as NO<sub>2</sub>) shall be determined using EPA Method 7E or EPA Method 20. The test results shall be corrected to ISO standard conditions as defined in 40 CFR Part 60 Subpart GG Section 60.335. [District Rules 1081, 4001 and 4703] Federally Enforceable Through Title V Permit
32. CO emissions shall be determined using EPA method 10 or EPA method 10B. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
33. Oxygen content of the exhaust gas shall be determined by using EPA method 3, EPA method 3A, or EPA method 20. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
34. The owner or operator shall install, operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation of the turbine, and the fuel consumption and the ratio of water to fuel being fired in the turbine. The system shall be accurate to within + 5% and shall be approved by the administrator. [40 CFR 60.334(a) and (g)] Federally Enforceable Through Title V Permit
35. The steam or water to fuel ratio or other parameters that are continuously monitored, shall be monitored during the performance test required under §60.8, to establish acceptable values and ranges. The owner or operator may supplement the performance test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant information to define the acceptable parametric ranges more precisely. The owner or operator shall develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NO<sub>x</sub> emission controls. The plan shall include the parameter(s) monitored and the acceptable range(s) of the parameter(s) as well as the basis for designating the parameter(s) and acceptable range(s). Any supplemental data such as engineering analyses, design specifications, manufacturer's recommendations and other relevant information shall be included in the monitoring plan. [District Rule 4703, 40 CFR 60.334(g) and 60.7(c)] Federally Enforceable Through Title V Permit
36. The owner or operator shall report periods of excess emissions that are defined as follows: any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NO<sub>x</sub> emission limit. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, and gas turbine load. [40 CFR 60.334(j)(1)] Federally Enforceable Through Title V Permit
37. The continuous monitor of fuel, water, and water-to-fuel ratio system shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the NO<sub>x</sub> emission limits at 30, 50, 75, and 100% of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer. [District Rule 4703, and 40 CFR 60.344(g), (j)(1), 335(b) and (c), and 40 CFR 60.13(a)] Federally Enforceable Through Title V Permit
38. The owner shall maintain a stationary gas turbine system operating log that includes: the actual local start-up and stop time; length and reason for reduced load periods; total hours of operation on each fuel, and type and quantity of each fuel used. These records shall be updated daily. [District Rules 2201 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.

39. The owner shall maintain a log that shows the following: (a). The combined daily NOx emissions from permit units N-2246-1 and N-2246-2; (b). The combined daily PM10 emissions from permit units N-2246-1 and N-2246-2; (c). The cumulative quarterly NOx emissions from permit units N-2246-1 and N-2246-2; (d). The cumulative annual PM10 emissions from this permit unit (N-2246-1). This log shall contain each calculated emission quantity as well as each process variable used in the respective calculations. [District Rule 2201] Federally Enforceable Through Title V Permit
40. The owner or operator shall determine compliance with the sulfur content standard using the following methods: ASTM D129, D2622, D4294, D1266, D5453, D1552, D4084, D5504, D6228, or Gas Processors Association Standard 2377. [40 CFR 60.334(h)(1), 335(b)(10)] Federally Enforceable Through Title V Permit
41. Transitional Operation Period shall be defined as any of the following periods: bypass transition period, primary re-ignition period, reduced load period, start-up or shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
42. Start-up shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit
43. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit
44. The duration of each startup or shutdown shall not exceed two hours. [District Rule 4703] Federally Enforceable Through Title V Permit
45. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during each transitional operation period. [District Rule 4703] Federally Enforceable Through Title V Permit
46. The operator performing start-up or shutdown of a unit shall keep records of the duration of startup or shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
47. The owner or operator shall maintain a stationary gas turbine system operating log, which identifies the date, start time, and end time that the unit was operated pursuant to Section 5.1.3.3 of Rule 4703 (9/20/07); a copy of the ISO or TID emergency declaration for that operation; and a copy of the information used to determine the applicable annual emission fee. [District Rule 4703]
48. The owner or operator shall maintain a stationary gas turbine system operating log, which identifies the date, start time, and end time that the unit was operated during a state of emergency, when such emergency is declared by proclamation of the Governor and the unit is located in the specific geographic location identified in the proclamation. [District Rule 4703] Federally Enforceable Through Title V Permit
49. All records shall be retained for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 2201 and 4703] 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-2246-8-3

**EXPIRATION DATE:** 09/30/2020

**EQUIPMENT DESCRIPTION:**

170 BHP GENERAL MOTORS MODEL VORTEC PROPANE-FIRED EMERGENCY STANDBY IC ENGINE WITH 3-WAY CATALYST POWERING AN ELECTRICAL GENERATOR

### **PERMIT UNIT REQUIREMENTS**

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. This engine shall only be fired on LPG or propane. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
4. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
5. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational non-selective catalyst installed on the exhaust stack. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternative device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. The owner or operator shall maintain these required meters in proper operating condition. The fuel meter shall be calibrated periodically per the recommendations of the manufacturer. [District Rules 2201 and 4702, and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
8. Emissions from the engine shall not exceed any of the following limits: 2.3 g-NO<sub>x</sub>/hp hr, 0.064 g-PM<sub>10</sub>/hp hr, 15.3 g-CO/hp hr, 0.54 g-VOC/hp hr, or 0.0164 lb-SO<sub>x</sub>/MMBtu. [District Rules 2201 and 4801, and Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
9. This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
10. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. The owner or operator has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
12. The engine's spark plugs shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
13. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
14. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
15. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
16. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
17. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
18. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702] Federally Enforceable Through Title V Permit
21. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] 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-2246-9-3

**EXPIRATION DATE:** 09/30/2020

**EQUIPMENT DESCRIPTION:**

170 BHP GENERAL MOTORS INDUSTRIAL POWERTRAIN PROPANE/LPG-FIRED EMERGENCY STANDBY IC ENGINE WITH A JOHNSON MATTHEY MODEL BANDITO NON-SELECTIVE CATALYTIC REDUCTION (NSCR) SYSTEM POWERING AN ELECTRICAL GENERATOR

### **PERMIT UNIT REQUIREMENTS**

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The exhaust stack shall have a flapper-type rain cap and shall vent vertically upward. The vertical exhaust flow shall not be impeded by roof overhang or any other obstruction. [District Rule 4102]
3. This engine shall only be fired on LPG or propane. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
5. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with either a positive crankcase ventilation system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
7. NOx emissions from the exhaust of the NSCR system shall not exceed 0.5 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. SOx emissions from the exhaust of the NSCR system shall not exceed 0.067 g/bhp-hr. [District Rule 2201, 4801, and Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
9. PM10 emissions from the exhaust of the NSCR system shall not exceed 0.076 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. CO emissions from the exhaust of the NSCR system shall not exceed 1.7 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. VOC emissions from the exhaust of the NSCR system shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702] Federally Enforceable Through Title V Permit
13. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] 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.

14. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
15. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702] Federally Enforceable Through Title V Permit
17. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702] Federally Enforceable Through Title V Permit
18. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

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



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# ATTACHMENT C

Detailed Summary List of Facility Permits

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### Detailed Facility Report

For Facility=2246

Sorted by Facility Name and Permit Number

|  |                                |  |                    |                               |                                    |   |
|--|--------------------------------|--|--------------------|-------------------------------|------------------------------------|---|
| <b>TURLOCK IRRIGATION DISTRICT</b><br><b>325 S WASHINGTON RD</b><br><b>TURLOCK, CA 95380</b> | FAC #<br>STATUS:<br>TELEPHONE: | <b>N 2246</b><br><b>A</b><br><b>2098838300</b> | TYPE:<br>TOXIC ID: | <b>TitleV</b><br><b>51653</b> | EXPIRE ON:<br>AREA:<br>INSP. DATE: | <b>09/30/2020</b><br><b>8 /</b><br><b>07/21</b> |
|--|--------------------------------|--|--------------------|-------------------------------|------------------------------------|---|

| PERMIT NUMBER | FEE DESCRIPTION   | FEE RULE   | QTY | FEE AMOUNT | FEE TOTAL | PERMIT STATUS | EQUIPMENT DESCRIPTION  |
|---------------|-------------------|------------|-----|------------|-----------|---------------|--|
| N-2246-1-10   | 25,800 kW         | 3020-08A F | 1   | 9,803.00   | 9,803.00  | A             | TURBINE/GENERATOR SET #1, 25.8 MW GENERAL ELECTRIC FRAME 5, MODEL PG 5361, NATURAL GAS/FUEL OIL #2 FIRED   |
| N-2246-2-10   | 25,800 kW         | 3020-08A F | 1   | 9,803.00   | 9,803.00  | A             | TURBINE/GENERATOR SET #2, 25.8 MW GENERAL ELECTRIC FRAME 5, MODEL PG 5361, NATURAL GAS/FUEL OIL #2 FIRED   |
| N-2246-7-1    | 205 hp IC Engine  | 3020-10 C  | 1   | 290.00     | 290.00    | D             | 205 HP JOHN DEERE MODEL 6531A DIESEL FIRED EMERGENCY IC ENGINE POWERING A 125 KW KOHLER MODEL 125R081 ELECTRICAL GENERATOR   |
| N-2246-8-3    | 170 bhp IC engine | 3020-10 B  | 1   | 143.00     | 143.00    | A             | 170 BHP GENERAL MOTORS MODEL VORTEC PROPANE-FIRED EMERGENCY STANDBY IC ENGINE WITH 3-WAY CATALYST POWERING AN ELECTRICAL GENERATOR   |
| N-2246-9-3    | 170 bhp IC engine | 3020-10 B  | 1   | 143.00     | 143.00    | A             | 170 BHP GENERAL MOTORS INDUSTRIAL POWERTRAIN PROPANE/LPG-FIRED EMERGENCY STANDBY IC ENGINE WITH A JOHNSON MATTHEY MODEL BANDITO NON-SELECTIVE CATALYTIC REDUCTION (NSCR) SYSTEM POWERING AN ELECTRICAL GENERATOR |

Number of Facilities Reported: 1

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# ATTACHMENT D

## HAP Major Source Calculations

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| Name   |  | LPG-Fired Internal Combustion 4SLB Engine   |   |   |
|--|--|---|---|---|
| <b>Applicability</b>   |  | Use this spreadsheet for LPG or Propane-Fired Internal Combustion 4 Stroke Lean Burn (4SLB) Engine. Entries required in yellow areas, output in gray areas. |   |   |
| <i>Author or updater</i>   |  | Matthew Cegielski   | <i>Last Update</i> February 25, 2020      |   |
| <b>Facility:</b>   |  | Turlock Irrigation District   |   |   |
| <b>ID#:</b>  |  | N-2246  |   |   |
| <b>Project #:</b>  |  | N-1201263   |   |   |
| <b>Inputs</b>  |  | 1,000 gal /hr   | 1,000 gal /yr                             | <b>Formula</b>  |
| LPG usage rate   |  | 3.20E-02  | 3.2                                       | Supply the necessary rate in 1,000 gallons. Enter the VOC value in g/bhp-hr. VOC values cannot be greater than uncontrolled value of 0.38881. The VOC control reduction will be calculated in the box below. If unknown, leave as 0.38881. Emissions are calculated by the multiplication of Fuel Rates and Emission Factors. |
| VOC g/ Bhp-hr  |  | 0.54  |   |   |
| VOC Control %  |  | -38.88  |   |   |
| <b>Substances</b>  |  | <b>CAS#</b>   | <b>Emission Factor lbs/ 1,000 gallons</b> | <b>LB/HR</b>  |
| 1,1,2,2-Tetrachloroethane  |  | 79345   | 3.76E-03                                  | 1.67E-04  |
| 1,1,2-Trichloroethane  |  | 79005   | 2.99E-03                                  | 1.33E-04  |
| 1,1-Dichloroethane   |  | 75343   | 2.22E-03                                  | 9.86E-05  |
| 1,2,4-Trimethylbenze   |  | 95636   | 1.34E-03                                  | 5.97E-05  |
| 1,2-Dichloropropane  |  | 78875   | 2.53E-03                                  | 1.12E-04  |
| 1,3-Butadiene  |  | 106990  | 2.51E-02                                  | 1.12E-03  |
| 1,3-Dichloropropene  |  | 542756  | 2.48E-03                                  | 1.10E-04  |
| 2,2,4-Trimethylpentane   |  | 540841  | 2.35E-02                                  | 1.04E-03  |
| 2-Methyl naphthalene   |  | 91576   | 3.12E-03                                  | 1.39E-04  |
| Acenaphthene   |  | 83329   | 1.18E-04                                  | 5.22E-06  |
| Acenaphthylene   |  | 208968  | 5.20E-04                                  | 2.31E-05  |
| Acetaldehyde   |  | 75070   | 7.86E-01                                  | 3.49E-02  |
| Acrolein   |  | 107028  | 4.83E-01                                  | 2.15E-02  |
| Benzene  |  | 71432   | 4.14E-02                                  | 1.84E-03  |
| Benzo[b]fluoranthene   |  | 205992  | 1.56E-05                                  | 6.93E-07  |
| Benzo[e]pyrene   |  | 192972  | 3.90E-05                                  | 1.73E-06  |
| Benzo[g,h,i]perylene   |  | 191242  | 3.89E-05                                  | 1.73E-06  |
| Biphenyl   |  | 92524   | 1.99E-02                                  | 8.86E-04  |
| Carbon tetrachloride   |  | 56235   | 3.45E-03                                  | 1.53E-04  |
| Chlorobenzene  |  | 108907  | 2.86E-03                                  | 1.27E-04  |
| Chloroform   |  | 67663   | 2.68E-03                                  | 1.19E-04  |
| Chrysene   |  | 218019  | 6.51E-05                                  | 2.90E-06  |
| Ethyl benzene  |  | 100414  | 3.73E-03                                  | 1.66E-04  |
| Ethyl Chloride (Chloroethane)  |  | 75003   | 1.76E-04                                  | 7.81E-06  |
| Ethylene dibromide   |  | 106934  | 4.16E-03                                  | 1.85E-04  |
| Ethylene dichloride (EDC)  |  | 107062  | 2.22E-03                                  | 9.86E-05  |
| Fluoranthene   |  | 206440  | 1.04E-04                                  | 4.64E-06  |
| Fluorene   |  | 86737   | 5.33E-04                                  | 2.37E-05  |
| Formaldehyde   |  | 50000   | 4.96E+00                                  | 2.21E-01  |
| Hexane   |  | 110543  | 1.04E-01                                  | 4.64E-03  |
| Isobutyraldehyde   |  | 78842   | 9.49E-03                                  | 4.22E-04  |
| Methanol   |  | 67561   | 2.35E-01                                  | 1.04E-02  |
| Methylene chloride   |  | 75092   | 1.88E-03                                  | 8.36E-05  |
| Naphthalene  |  | 91203   | 6.99E-03                                  | 3.11E-04  |
| PAH  |  | 1151  | 2.53E-03                                  | 1.12E-04  |
| Phenanthrene   |  | 85018   | 9.78E-04                                  | 4.34E-05  |
| Phenol   |  | 108952  | 2.26E-03                                  | 1.00E-04  |
| Pyrene   |  | 129000  | 1.28E-04                                  | 5.68E-06  |
| Styrene  |  | 100425  | 2.22E-03                                  | 9.86E-05  |
| Toluene  |  | 108883  | 3.84E-02                                  | 1.70E-03  |
| Vinyl Chloride   |  | 75014   | 1.40E-03                                  | 6.22E-05  |
| Xylene   |  | 1330207   | 1.73E-02                                  | 7.69E-04  |
| <b>References:</b>   |  |   |   |   |
| * The emission factors derived from Table 3.2-2 (pg. 11), "Uncontrolled Emission Factors For 4-Stroke Lean-Burn Engines" in July 2000 AP 42, Fifth Edition, Volume I, Chapter 3: Stationary Internal Combustion Sources, Section 2: Natural Gas-Fired Reciprocating Engine and conversion from NG to LPG using District factors. |  |   |   |   |
| Pollutants required for toxic reporting. Current as of update date   |  |   |   |   |

| LPG Bhp Fuel Use Convertor |              |
|----------------------------|--------------|
| Bhp                        | 1,000 gal/hr |
| 340.0                      | 2.6275E-02   |

\*Conversion factor for HP to Btu/hr is 2.5425E<sup>3</sup>, HHV of LPG is 94,000 Btu/gallon Thermal Efficiency of engine is 0.35 1,000 gal/hr= Bhp\* ((2542.5/(94,000\*0.35) /1000)

| Uncontrolled values based on AP42 and District Policy |               |                |               |
|---|---------------|----------------|---------------|
| VOC lb/ MMBtu   | VOC lb/ MMscf | VOC lb/ Bhp-hr | VOC g/ Bhp-hr |
| 0.118   | 1.180E+02     | 8.572E-04      | 0.388819669   |