



NOV 01 2012

Glenn Mount  
Modesto Irrigation District  
PO Box 4060  
Modesto, CA 95352

**Re: Notice of Minor Title V Permit Modification  
District Facility # N-3233  
Project # N-1113942**

Dear Mr. Mount:

Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to incorporate recently issued Authorities to Construct N-3233-6-1, N-3233-7-1, N-3233-8-1, N-3233-9-1, N-3233-10-1 and N-3233-11-1 into the Title V operating permit. The modifications were to relocate the oxidation catalyts relative to the selective catalytic reduction catalyts.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued Authorities to Construct N-3233-6-1, N-3233-7-1, N-3233-8-1, N-3233-9-1, N-3233-10-1 and N-3233-11-1, emission increases, application, and previous Title V permit. This project will be subject to a 45-day EPA commenting period prior to the District taking final action.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Rupi Gill at (209) 557-6400.

Sincerely,

David Warner  
Director of Permit Services

DW:MS/st

Enclosures

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

---

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



NOV 01 2012

Gerardo C. Rios, Chief  
Permits Office  
Air Division  
U.S. EPA - Region IX  
75 Hawthorne St  
San Francisco, CA 94105

Re: **Notice of Minor Title V Permit Modification**  
**District Facility # N-3233**  
**Project # N-1113942**

Dear Mr. Rios:

Enclosed for you to review is an application for minor Title V permit modification for the facility identified above. Modesto Irrigation District is proposing a Title V minor permit modification to incorporate the recently issued Authorities to Construct N-3233-6-1, N-3233-7-1, N-3233-8-1, N-3233-9-1, N-3233-10-1 and N-3233-11-1 into the Title V operating permit. The modifications were to relocate the oxidation catalysts relative to the selective catalytic reduction catalysts.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued Authorities to Construct N-3233-6-1, N-3233-7-1, N-3233-8-1, N-3233-9-1, N-3233-10-1 and N-3233-11-1, emission increases, application, and previous Title V permit. Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Rupi Gill at (209) 557-6400.

Sincerely,

David Warner  
Director of Permit Services

DW:MS/st

Enclosures

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

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585

# **TITLE V APPLICATION REVIEW**

Minor Modification  
Project #: N-1113942

Engineer: Mark Schonhoff  
Date: August 30, 2012

Facility Number: N-3233  
Facility Name: Modesto Irrigation District  
Mailing Address: PO Box 4060  
Modesto, CA 95352

Contact Name: Glenn Mount  
Phone: (209) 526-7616

Responsible Official: Glenn Mount  
Title: Generation Manager

---

## **I. PROPOSAL**

Modesto Irrigation District is proposing a Title V minor permit modification to incorporate the recently issued Authorities to Construct N-3233-6-1, N-3233-7-1, N-3233-8-1, N-3233-9-1, N-3233-10-1 and N-3233-11-1 into the Title V operating permit. The modifications were to change the position of the oxidation catalyst relative to that of the selective catalytic reduction catalyst of each engine to more comfortably comply with the emission limits.

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with the applicable requirements and to provide the legal and factual basis for the proposed revisions.

## **II. FACILITY LOCATION**

920 Woodland Avenue  
Modesto, CA

### **III. EQUIPMENT DESCRIPTION**

N-3233-6-1, N-3233-7-1, N-3233-8-1, N-3233-9-1, N-3233-10-1  
and N-3233-11-1 (Same for Each Unit)

11,667 BHP NATURAL GAS FIRED WARTSILA 20V34SG IC ENGINE POWERING AN 8.44 MW ELECTRICAL GENERATOR. THE ENGINE IS EQUIPPED WITH A TURBOCHARGER, AN INTERCOOLER, A SELECTIVE CATALYTIC REDUCTION SYSTEM WITH AMMONIA INJECTION AND AN OXIDATION CATALYST.

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

This change to a Title V permit is considered to be a minor modification and, as such, requires no public review.

### **V. APPLICABLE REQUIREMENTS**

District Rule 2520, Federally Mandated Operating Permits (Adopted June 21, 2001)

### **VI. DESCRIPTION OF PROPOSED MODIFICATIONS**

N-3233-6-1, N-3233-7-1, N-3233-8-1, N-3233-9-1, N-3233-10-1  
and N-3233-11-1 (Same for Each Unit)

The engines are currently served by separate oxidation and selective catalytic reduction (SCR) catalysts. In their current configuration, the oxidation catalyst is downstream of the SCR catalyst. It has been discovered that when the ammonia slip from the SCR catalysts enters the oxidation catalysts, it is oxidized to NOx. To prevent this from happening, the applicant is has received Authorities to Construct (ATC's) authorizing the relocation of the oxidation catalysts to upstream of the SCR catalysts. The modifications and the required source tests have been successfully completed.

### **VII. COMPLIANCE**

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;

2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include;
  - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
  - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including;

1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
2. The source's suggested draft permit; and
3. Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used.

## **VIII. ATTACHMENTS**

- A. Proposed Modified Title V Operating Permit No. N-3233-6-2, N-3233-7-2, N-3233-8-2, N-3233-9-2, N-3233-10-2 and N-3233-11-2
- B. Authorities to Construct No. N-3233-6-1, N-3233-7-1, N-3233-8-1, N-3233-9-1, N-3233-10-1 and N-3233-11-1
- C. Emissions Increases
- D. Application
- E. Previous Title V Operating Permit No.'s N-3233-6-0, N-3233-7-0, N-3233-8-0, N-3233-9-0, N-3233-10-0 and N-3233-11-1

# ATTACHMENT A

Proposed Modified Title V Operating Permits  
N-3233-6-2, N-3233-7-2, N-3233-8-2, N-3233-9-  
2, N-3233-10-2 and N-3233-11-2

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-3233-6-2

EXPIRATION DATE: 11/30/2015

## EQUIPMENT DESCRIPTION:

11,667 BHP NATURAL GAS FIRED WARTSILA 20V34SG IC ENGINE POWERING AN 8.44 MW ELECTRICAL GENERATOR. THE ENGINE IS EQUIPPED WITH A TURBOCHARGER, AN INTERCOOLER, A SELECTIVE CATALYTIC REDUCTION SYSTEM WITH AMMONIA INJECTION AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3A).

## PERMIT UNIT REQUIREMENTS

1. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The NOx emissions during steady state operation shall not exceed 5 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
5. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O<sub>2</sub> as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM<sub>10</sub> emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM<sub>10</sub> shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emissions shall not exceed 10 ppmvd @ 15% O<sub>2</sub> over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM10 emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to determine compliance with the NOx, CO, VOC, PM10 and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM10 emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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
23. 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
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NOx emissions shall be reported as NO2. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SOx - CARB Method 100, PM10 - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 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.

27. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
28. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
29. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
33. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
34. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
36. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
37. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

38. A record of the combined quarterly and annual NOx, VOC and PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
39. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined annual CO and SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
45. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
46. All records shall be maintained and retained on-site for a minimum of five 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.

DRAFT

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-3233-7-2

EXPIRATION DATE: 11/30/2015

## EQUIPMENT DESCRIPTION:

11,667 BHP NATURAL GAS FIRED WARTSILA 20V34SG IC ENGINE POWERING AN 8.44 MW ELECTRICAL GENERATOR. THE ENGINE IS EQUIPPED WITH A TURBOCHARGER, AN INTERCOOLER, A SELECTIVE CATALYTIC REDUCTION SYSTEM WITH AMMONIA INJECTION AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3B).

## PERMIT UNIT REQUIREMENTS

1. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The NOx emissions during steady state operation shall not exceed 5 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
5. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O<sub>2</sub> as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM<sub>10</sub> emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM<sub>10</sub> shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emissions shall not exceed 10 ppmvd @ 15% O<sub>2</sub> over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

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

14. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM10 emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to determine compliance with the NOx, CO, VOC, PM10 and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM10 emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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
23. 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
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NOx emissions shall be reported as NO2. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SOx - CARB Method 100, PM10 - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 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.

27. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
28. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
29. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
33. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
34. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
36. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
37. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

38. A record of the combined quarterly and annual NOx, VOC and PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
39. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined annual CO and SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
45. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
46. All records shall be maintained and retained on-site for a minimum of five 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.

DRAFT

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-3233-8-2

EXPIRATION DATE: 11/30/2015

## EQUIPMENT DESCRIPTION:

11,667 BHP NATURAL GAS FIRED WARTSILA 20V34SG IC ENGINE POWERING AN 8.44 MW ELECTRICAL GENERATOR. THE ENGINE IS EQUIPPED WITH A TURBOCHARGER, AN INTERCOOLER, A SELECTIVE CATALYTIC REDUCTION SYSTEM WITH AMMONIA INJECTION AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3C).

## PERMIT UNIT REQUIREMENTS

1. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The NOx emissions during steady state operation shall not exceed 5 ppmvd @ 15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
5. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O2 as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM10 emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM10 shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

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

14. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM10 emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to determine compliance with the NOx, CO, VOC, PM10 and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM10 emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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
23. 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
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NOx emissions shall be reported as NO2. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SOx - CARB Method 100, PM10 - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 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.

27. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
28. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
29. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
33. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
34. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
36. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
37. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

38. A record of the combined quarterly and annual NOx, VOC and PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
39. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined annual CO and SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
45. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
46. All records shall be maintained and retained on-site for a minimum of five 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.

DRAFT

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-3233-9-2

**EXPIRATION DATE:** 11/30/2015

**EQUIPMENT DESCRIPTION:**

11,667 BHP NATURAL GAS FIRED WARTSILA 20V34SG IC ENGINE POWERING AN 8.44 MW ELECTRICAL GENERATOR. THE ENGINE IS EQUIPPED WITH A TURBOCHARGER, AN INTERCOOLER, A SELECTIVE CATALYTIC REDUCTION SYSTEM WITH AMMONIA INJECTION AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3D).

## PERMIT UNIT REQUIREMENTS

1. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The NOx emissions during steady state operation shall not exceed 5 ppmvd @15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
5. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O2 as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM10 emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM10 shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

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

14. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM10 emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to determine compliance with the NOx, CO, VOC, PM10 and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM10 emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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
23. 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
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NOx emissions shall be reported as NO2. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SOx - CARB Method 100, PM10 - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 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.

27. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
28. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
29. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
33. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
34. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
36. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
37. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

38. A record of the combined quarterly and annual NOx, VOC and PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
39. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined annual CO and SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
45. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
46. All records shall be maintained and retained on-site for a minimum of five 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.

DRAFT

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-3233-10-2

**EXPIRATION DATE:** 11/30/2015

**EQUIPMENT DESCRIPTION:**

11,667 BHP NATURAL GAS FIRED WARTSILA 20V34SG IC ENGINE POWERING AN 8.44 MW ELECTRICAL GENERATOR. THE ENGINE IS EQUIPPED WITH A TURBOCHARGER, AN INTERCOOLER, A SELECTIVE CATALYTIC REDUCTION SYSTEM WITH AMMONIA INJECTION AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3E).

## PERMIT UNIT REQUIREMENTS

1. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The NOx emissions during steady state operation shall not exceed 5 ppmvd @ 15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
5. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O2 as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM10 emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM10 shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM10 emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to determine compliance with the NOx, CO, VOC, PM10 and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM10 emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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
23. 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
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NOx emissions shall be reported as NO2. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SOx - CARB Method 100, PM10 - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201, and 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.

27. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
28. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
29. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
33. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
34. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
36. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
37. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

38. A record of the combined quarterly and annual NOx, VOC and PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
39. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined annual CO and SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
45. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
46. All records shall be maintained and retained on-site for a minimum of five 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.

DRAFT

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-3233-11-2

EXPIRATION DATE: 11/30/2015

## EQUIPMENT DESCRIPTION:

11,667 BHP NATURAL GAS FIRED WARTSILA 20V34SG IC ENGINE POWERING AN 8.44 MW ELECTRICAL GENERATOR. THE ENGINE IS EQUIPPED WITH A TURBOCHARGER, AN INTERCOOLER, A SELECTIVE CATALYTIC REDUCTION SYSTEM WITH AMMONIA INJECTION AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3F).

## PERMIT UNIT REQUIREMENTS

1. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The NOx emissions during steady state operation shall not exceed 5 ppmvd @15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
5. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O2 as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM10 emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM10 shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

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

14. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM10 emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to determine compliance with the NOx, CO, VOC, PM10 and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM10 emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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
23. 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
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NOx emissions shall be reported as NO2. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SOx - CARB Method 100, PM10 - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 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.

27. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
28. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
29. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
33. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
34. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
36. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
37. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit

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

38. A record of the combined quarterly and annual NO<sub>x</sub>, VOC and PM<sub>10</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
39. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined annual CO and SO<sub>x</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
45. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
46. All records shall be maintained and retained on-site for a minimum of five 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.

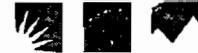
DRAFT

# ATTACHMENT B

Authorities to Construct  
N-3233-6-1, N-3233-7-1, N-3233-8-1, N-3233-9-  
1, N-3233-10-1 and N-3233-11-1



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



**HEALTHY AIR LIVING™**

**COPY**

## AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-3233-6-1

**ISSUANCE DATE:** 11/28/2011

**LEGAL OWNER OR OPERATOR:** MODESTO IRRIGATION DISTRICT  
**MAILING ADDRESS:** GENERATION DEPT ADMIN OFFICES  
P O BOX 4060  
MODESTO, CA 95352

**LOCATION:** 920 WOODLAND AVENUE  
MODESTO, CA 95351

**EQUIPMENT DESCRIPTION:**

WARTSILA 20V34SG NATURAL GAS FIRED IC ENGINE POWERING AN 8.44 MW GENERATOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3A). MODIFICATION TO RELOCATE THE OXIDATION CATALYST TO UPSTREAM OF THE SCR CATALYST.

### CONDITIONS

1. The permittee may construct or modify the equipment as authorized by this Authority to Construct at this time. Prior to operating with the modifications authorized by this Authority to Construct, the District shall receive an application for a Minor Permit Modification. [District Rule 2520, 5.3.2] Federally Enforceable Through Title V Permit
2. A source test to measure the NOx, CO, VOC, PM10 and ammonia emissions from this unit shall be conducted within 60 days after initial start-up. The filterable and condensable PM10 emissions shall be determined separately. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
3. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sedredji, Executive Director / APCO

DAVID WARNER, Director of Permit Services

N-3233-6-1, Nov 28 2011, 1:14PM - BCD/DM/DM - Joint Inspection NOT Required

6. The NOx emissions during steady state operation shall not exceed 5 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O<sub>2</sub> as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The PM<sub>10</sub> emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM<sub>10</sub> shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The ammonia emissions shall not exceed 10 ppmvd @ 15% O<sub>2</sub> over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The combined PM<sub>10</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM<sub>10</sub> emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. Source testing to determine compliance with the NO<sub>x</sub>, CO, VOC, PM<sub>10</sub> and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM<sub>10</sub> emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
24. 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
25. 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
26. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NO<sub>x</sub> emissions shall be reported as NO<sub>2</sub>. VOC, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
28. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SO<sub>x</sub> - CARB Method 100, PM<sub>10</sub> - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 4702] Federally Enforceable Through Title V Permit
29. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
33. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
34. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
35. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40-CFR 60.7(f)] Federally Enforceable Through Title V Permit
38. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
39. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined quarterly and annual NO<sub>x</sub>, VOC and PM<sub>10</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the combined annual CO and SO<sub>x</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
45. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
46. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
47. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
48. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT

  
**HEALTHY AIR LIVING™**

**COPY**

## AUTHORITY TO CONSTRUCT

PERMIT NO: N-3233-7-1

ISSUANCE DATE: 11/28/2011

**LEGAL OWNER OR OPERATOR:** MODESTO IRRIGATION DISTRICT  
**MAILING ADDRESS:** GENERATION DEPT ADMIN OFFICES  
P O BOX 4060  
MODESTO, CA 95352

**LOCATION:** 920 WOODLAND AVENUE  
MODESTO, CA 95351

**EQUIPMENT DESCRIPTION:**

WARTSILA 20V34SG NATURAL GAS FIRED IC ENGINE POWERING AN 8.44 MW GENERATOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3B). MODIFICATION TO RELOCATE THE OXIDATION CATALYST TO UPSTREAM OF THE SCR CATALYST.

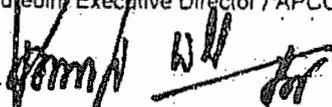
### CONDITIONS

1. The permittee may construct or modify the equipment as authorized by this Authority to Construct at this time. Prior to operating with the modifications authorized by this Authority to Construct, the District shall receive an application for a Minor Permit Modification. [District Rule 2520, 5.3.2] Federally Enforceable Through Title V Permit
2. A source test to measure the NOx, CO, VOC, PM10 and ammonia emissions from this unit shall be conducted within 60 days after initial start-up. The filterable and condensable PM10 emissions shall be determined separately. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
3. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadeghin, Executive Director / APCO



DAVID WARNER, Director of Permit Services

N-3233-7-1-11 Nov 28 2011 1:15PM - SCHOENIGM : Job Inspection NOT Required

6. The NOx emissions during steady state operation shall not exceed 5 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O<sub>2</sub> as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The PM<sub>10</sub> emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM<sub>10</sub> shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The ammonia emissions shall not exceed 10 ppmvd @ 15% O<sub>2</sub> over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The combined PM<sub>10</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM<sub>10</sub> emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. Source testing to determine compliance with the NO<sub>x</sub>, CO, VOC, PM<sub>10</sub> and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM<sub>10</sub> emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
24. 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
25. 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
26. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NO<sub>x</sub> emissions shall be reported as NO<sub>2</sub>. VOC, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
28. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SO<sub>x</sub> - CARB Method 100, PM<sub>10</sub> - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 4702] Federally Enforceable Through Title V Permit
29. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
33. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
34. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
35. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
38. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
39. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined quarterly and annual NO<sub>x</sub>, VOC and PM<sub>10</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the combined annual CO and SO<sub>x</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
45. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
46. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
47. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
48. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT

**HEALTHY AIR LIVING™**

**COPY**

## AUTHORITY TO CONSTRUCT

PERMIT NO: N-3233-8-1

ISSUANCE DATE: 11/28/2011

**LEGAL OWNER OR OPERATOR:** MODESTO IRRIGATION DISTRICT  
**MAILING ADDRESS:** GENERATION DEPT ADMIN OFFICES  
P O BOX 4060  
MODESTO, CA 95352

**LOCATION:** 920 WOODLAND AVENUE  
MODESTO, CA 95351

**EQUIPMENT DESCRIPTION:**

WARTSILA 20V34SG NATURAL GAS FIRED IC ENGINE POWERING AN 8.44 MW GENERATOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3C). MODIFICATION TO RELOCATE THE OXIDATION CATALYST TO UPSTREAM OF THE SCR CATALYST.

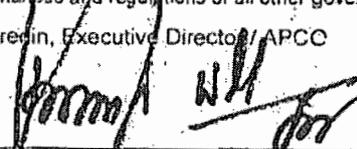
### CONDITIONS

1. The permittee may construct or modify the equipment as authorized by this Authority to Construct at this time. Prior to operating with the modifications authorized by this Authority to Construct, the District shall receive an application for a Minor Permit Modification. [District Rule 2520, 5.3.2] Federally Enforceable Through Title V Permit
2. A source test to measure the NOx, CO, VOC, PM10 and ammonia emissions from this unit shall be conducted within 60 days after initial start-up. The filterable and condensible PM10 emissions shall be determined separately. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
3. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadrejin, Executive Director, APCC

  
DAVID WARNER, Director of Permit Services

N-3233-8-1 Nov 28 2011 1:15PM - SCHOONHOVEN Joint Inspection NOT Required

6. The NO<sub>x</sub> emissions during steady state operation shall not exceed 5 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The NO<sub>x</sub> emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O<sub>2</sub> as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The SO<sub>x</sub> emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The PM<sub>10</sub> emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM<sub>10</sub> shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The ammonia emissions shall not exceed 10 ppmvd @ 15% O<sub>2</sub> over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined NO<sub>x</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The combined SO<sub>x</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SO<sub>x</sub> emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The combined PM<sub>10</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM<sub>10</sub> emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The facility-wide SO<sub>x</sub> emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. Source testing to determine compliance with the NO<sub>x</sub>, CO, VOC, PM<sub>10</sub> and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM<sub>10</sub> emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
24. 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
25. 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
26. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NO<sub>x</sub> emissions shall be reported as NO<sub>2</sub>. VOC, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
28. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SO<sub>x</sub> - CARB Method 100, PM<sub>10</sub> - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 4702] Federally Enforceable Through Title V Permit
29. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
33. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
34. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
35. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
38. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
39. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined quarterly and annual NO<sub>x</sub>, VOC and PM<sub>10</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the combined annual CO and SO<sub>x</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
45. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
46. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
47. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
48. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit



**COPY**

## AUTHORITY TO CONSTRUCT

PERMIT NO: N-3233-9-1

ISSUANCE DATE: 11/28/2011

**LEGAL OWNER OR OPERATOR:** MODESTO IRRIGATION DISTRICT  
**MAILING ADDRESS:** GENERATION DEPT ADMIN OFFICES  
P O BOX 4060  
MODESTO, CA 95352

**LOCATION:** 920 WOODLAND AVENUE  
MODESTO, CA 95351

**EQUIPMENT DESCRIPTION:**

WARTSILA 20V34SG NATURAL GAS FIRED IC ENGINE POWERING AN 8.44 MW GENERATOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3D). MODIFICATION TO RELOCATE THE OXIDATION CATALYST TO UPSTREAM OF THE SCR CATALYST.

### CONDITIONS

1. The permittee may construct or modify the equipment as authorized by this Authority to Construct at this time. Prior to operating with the modifications authorized by this Authority to Construct, the District shall receive an application for a Minor Permit Modification. [District Rule 2520, 5.3.2] Federally Enforceable Through Title V Permit
2. A source test to measure the NOx, CO, VOC, PM10 and ammonia emissions from this unit shall be conducted within 60 days after initial start-up. The filterable and condensable PM10 emissions shall be determined separately. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
3. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Saadedin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

N-3233-9-1: Nov 28 2011 1:15PM - BCHOHPCOM - Vent Inspection NOT Required

6. The NOx emissions during steady state operation shall not exceed 5 ppmvd @15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O2 as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The PM10 emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM10 shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The ammonia emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The combined PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM10 emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. Source testing to determine compliance with the NO<sub>x</sub>, CO, VOC, PM<sub>10</sub> and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM<sub>10</sub> emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
24. 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
25. 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
26. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NO<sub>x</sub> emissions shall be reported as NO<sub>2</sub>. VOC, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
28. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SO<sub>x</sub> - CARB Method 100, PM<sub>10</sub> - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 4702] Federally Enforceable Through Title V Permit
29. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
33. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
34. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
35. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
38. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
39. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined quarterly and annual NO<sub>x</sub>, VOC and PM<sub>10</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the combined annual CO and SO<sub>x</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
45. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
46. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
47. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
48. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit



COPY

## AUTHORITY TO CONSTRUCT

PERMIT NO: N-3233-10-1

ISSUANCE DATE: 11/28/2011

LEGAL OWNER OR OPERATOR: MODESTO IRRIGATION DISTRICT  
MAILING ADDRESS: GENERATION DEPT ADMIN OFFICES  
P O BOX 4060  
MODESTO, CA 95352

LOCATION: 920 WOODLAND AVENUE  
MODESTO, CA 95351

**EQUIPMENT DESCRIPTION:**

WARTSILA 20V34SG NATURAL GAS FIRED IC ENGINE POWERING AN 8.44 MW GENERATOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3E). MODIFICATION TO RELOCATE THE OXIDATION CATALYST TO UPSTREAM OF THE SCR CATALYST.

### CONDITIONS

1. The permittee may construct or modify the equipment as authorized by this Authority to Construct at this time. Prior to operating with the modifications authorized by this Authority to Construct, the District shall receive an application for a Minor Permit Modification. [District Rule 2520, 5.3.2] Federally Enforceable Through Title V Permit
2. A source test to measure the NOx, CO, VOC, PM10 and ammonia emissions from this unit shall be conducted within 60 days after initial start-up. The filterable and condensable PM10 emissions shall be determined separately. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
3. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadrejin, Executive Director / PCO

DAVID WARNER, Director of Permit Services

N-3233-10-1, Nov 28 2011 1:58PM - SCHED/PCO - Joint Inspector, NOT Required

6. The NO<sub>x</sub> emissions during steady state operation shall not exceed 5 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The NO<sub>x</sub> emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O<sub>2</sub> as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The SO<sub>x</sub> emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The PM<sub>10</sub> emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM<sub>10</sub> shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The ammonia emissions shall not exceed 10 ppmvd @ 15% O<sub>2</sub> over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined NO<sub>x</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The combined SO<sub>x</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SO<sub>x</sub> emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The combined PM<sub>10</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM<sub>10</sub> emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The facility-wide SO<sub>x</sub> emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. Source testing to determine compliance with the NO<sub>x</sub>, CO, VOC, PM<sub>10</sub> and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM<sub>10</sub> emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
24. 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
25. 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
26. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NO<sub>x</sub> emissions shall be reported as NO<sub>2</sub>. VOC, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
28. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SO<sub>x</sub> - CARB Method 100, PM<sub>10</sub> - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 4702] Federally Enforceable Through Title V Permit
29. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
33. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
34. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
35. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
38. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
39. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined quarterly and annual NO<sub>x</sub>, VOC and PM<sub>10</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the combined annual CO and SO<sub>x</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
45. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
46. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
47. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
48. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



**HEALTHY AIR LIVING™**

**COPY**

## AUTHORITY TO CONSTRUCT

PERMIT NO: N-3233-11-1

ISSUANCE DATE: 11/28/2011

**LEGAL OWNER OR OPERATOR:** MODESTO IRRIGATION DISTRICT  
**MAILING ADDRESS:** GENERATION DEPT ADMIN OFFICES  
P O BOX 4060  
MODESTO, CA 95352

**LOCATION:** 920 WOODLAND AVENUE  
MODESTO, CA 95351

**EQUIPMENT DESCRIPTION:**

WARTSILA 20V34SG NATURAL GAS FIRED IC ENGINE POWERING AN 8.44 MW GENERATOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3F). MODIFICATION TO RELOCATE THE OXIDATION CATALYST TO UPSTREAM OF THE SCR CATALYST.

### CONDITIONS

1. The permittee may construct or modify the equipment as authorized by this Authority to Construct at this time. Prior to operating with the modifications authorized by this Authority to Construct, the District shall receive an application for a Minor Permit Modification. [District Rule 2520, 5.3.2] Federally Enforceable Through Title V Permit
2. A source test to measure the NOx, CO, VOC, PM10 and ammonia emissions from this unit shall be conducted within 60 days after initial start-up. The filterable and condensable PM10 emissions shall be determined separately. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
3. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadreghin, Executive Director / APCO

DAVID WARNER, Director of Permit Services  
N-3233-11-1; Nov 28 2011 1:15 PM - CCHONHOM : Job Inspection NOT Required

6. The NO<sub>x</sub> emissions during steady state operation shall not exceed 5 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The NO<sub>x</sub> emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O<sub>2</sub> as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
11. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The SO<sub>x</sub> emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The PM<sub>10</sub> emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM<sub>10</sub> shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The ammonia emissions shall not exceed 10 ppmvd @ 15% O<sub>2</sub> over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined NO<sub>x</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The combined SO<sub>x</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SO<sub>x</sub> emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The combined PM<sub>10</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM<sub>10</sub> emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The facility-wide SO<sub>x</sub> emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. Source testing to determine compliance with the NO<sub>x</sub>, CO, VOC, PM<sub>10</sub> and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM<sub>10</sub> emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
24. 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
25. 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
26. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NO<sub>x</sub> emissions shall be reported as NO<sub>2</sub>. VOC, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
28. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SO<sub>x</sub> - CARB Method 100, PM<sub>10</sub> - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 4702] Federally Enforceable Through Title V Permit
29. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
33. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
34. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
35. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
38. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
39. Records of the facility-wide CO and SOx emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined quarterly and annual NOx, VOC and PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the combined annual CO and SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
45. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
46. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
47. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
48. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

# ATTACHMENT C

## Emissions Increases

ATC Number	SSIPE (lb/yr)				
	NOx	VOC	CO	SOx	PM10
N-3233-6-1	0	0	0	0	0
N-3233-7-1	0	0	0	0	0
N-3233-8-1	0	0	0	0	0
N-3233-9-1	0	0	0	0	0
N-3233-10-1	0	0	0	0	0
N-3233-11-1	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

# ATTACHMENT D

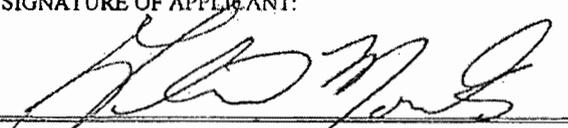
Application

APPLICATION FOR  
TITLE V MODIFICATION

San Joaquin Valley Air Pollution Control District  
www.valleyair.org

Permit Application For:

[ ] ADMINISTRATIVE AMENDMENT [ X ] MINOR MODIFICATION [ ] SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: <b>MODESTO IRRIGATION DISTRICT</b>	
2. MAILING ADDRESS: STREET/P.O. BOX: <b>P. O. Box 4060</b> CITY: <b>Modesto</b> STATE: <b>CA</b> 9-DIGIT ZIP CODE: <b>95352</b>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <b>920 Woodland Avenue</b> CITY: <b>Modesto</b> 1/4 SECTION _____ TOWNSHIP _____ RANGE _____	INSTALLATION DATE: <b>June 2011</b>
4. GENERAL NATURE OF BUSINESS: <b>Electric Power Generation</b>	
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) <b>Upgrades to the air pollution controls, including the relocation of the oxidation catalysts, for six reciprocating engines (PTO# N-3233-6-0 through 11-0).</b>	
6. TYPE OR PRINT NAME OF APPLICANT: <b>Glenn Mount</b>	TITLE OF APPLICANT: <b>Generation Manager</b>
7. SIGNATURE OF APPLICANT: 	DATE: <b>11-4-2011</b> PHONE: <b>(209) 526-7616</b> FAX: <b>(209) 526-7537</b> EMAIL: <b>glennm@mid.org</b>

For APCD Use Only:

DATE STAMP <b>RECEIVED</b> <b>NOV 14 2011</b> SJVAPCD NORTHERN REGION	FILING FEE RECEIVED: \$ <b>0</b> CHECK#: _____ DATE PAID: _____ PROJECT NO: <b>01113942</b> FACILITY ID: <b>N-3233</b>
---	--

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

**TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM**

**I. TYPE OF PERMIT ACTION (Check appropriate box)**

SIGNIFICANT PERMIT MODIFICATION

ADMINISTRATIVE AMENDMENT

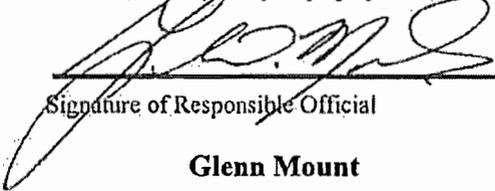
MINOR PERMIT MODIFICATION

COMPANY NAME: <b>MODESTO IRRIGATION DISTRICT</b>	FACILITY ID: <b>N - 3233</b>
1. Type of Organization: <input type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input checked="" type="checkbox"/> Utility	
2. Owner's Name: <b>MODESTO IRRIGATION DISTRICT</b>	
3. Agent to the Owner:	

**II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):**

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the foregoing is correct and true:

  
\_\_\_\_\_  
Signature of Responsible Official

11-4-2011  
\_\_\_\_\_  
Date

**Glenn Mount**  
\_\_\_\_\_  
Name of Responsible Official (please print)

**Generation Manger**  
\_\_\_\_\_  
Title of Responsible Official (please print)

# ATTACHMENT E

Previous Title V Operating Permits  
N-3233-6-0, N-3233-7-0, N-3233-8-0, N-3233-9-  
0, N-3233-10-0 and N-3233-11-0

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-3233-6-0

**EXPIRATION DATE:** 11/30/2015

**EQUIPMENT DESCRIPTION:**

WARTSILA 20V34SG NATURAL GAS FIRED IC ENGINE POWERING AN 8.44 MW GENERATOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3A).

## PERMIT UNIT REQUIREMENTS

---

1. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The NOx emissions during steady state operation shall not exceed 5 ppmvd @15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
5. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O2 as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM10 emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM10 shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM10 emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to determine compliance with the NOx, CO, VOC, PM10 and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM10 emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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
23. 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
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NOx emissions shall be reported as NO2. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SOx - CARB Method 100, PM10 - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 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.

27. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
28. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
29. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
33. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
34. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
36. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
37. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

38. A record of the combined quarterly and annual NOx, VOC and PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
39. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined annual CO and SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
45. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
46. All records shall be maintained and retained on-site for a minimum of five 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.

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-3233-7-0

EXPIRATION DATE: 11/30/2015

## EQUIPMENT DESCRIPTION:

WARTSILA 20V34SG NATURAL GAS FIRED IC ENGINE POWERING AN 8.44 MW GENERATOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3B).

## PERMIT UNIT REQUIREMENTS

---

1. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The NOx emissions during steady state operation shall not exceed 5 ppmvd @ 15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
5. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O2 as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM10 emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM10 shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM10 emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to determine compliance with the NOx, CO, VOC, PM10 and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM10 emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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
23. 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
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NOx emissions shall be reported as NO2. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SOx - CARB Method 100, PM10 - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 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.

27. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
28. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
29. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
33. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
34. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
36. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
37. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

38. A record of the combined quarterly and annual NOx, VOC and PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
39. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined annual CO and SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
45. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
46. All records shall be maintained and retained on-site for a minimum of five 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.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-3233-8-0

**EXPIRATION DATE:** 11/30/2015

**EQUIPMENT DESCRIPTION:**

WARTSILA 20V34SG NATURAL GAS FIRED IC ENGINE POWERING AN 8.44 MW GENERATOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3C).

## PERMIT UNIT REQUIREMENTS

---

1. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The NOx emissions during steady state operation shall not exceed 5 ppmvd @15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
5. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O2 as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM10 emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM10 shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM10 emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to determine compliance with the NOx, CO, VOC, PM10 and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM10 emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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
23. 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
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NOx emissions shall be reported as NO2. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SOx - CARB Method 100, PM10 - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 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.

27. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
28. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
29. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
33. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
34. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
36. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
37. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

38. A record of the combined quarterly and annual NOx, VOC and PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
39. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined annual CO and SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
45. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
46. All records shall be maintained and retained on-site for a minimum of five 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.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-3233-9-0

**EXPIRATION DATE:** 11/30/2015

**EQUIPMENT DESCRIPTION:**

WARTSILA 20V34SG NATURAL GAS FIRED IC ENGINE POWERING AN 8.44 MW GENERATOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3D).

## PERMIT UNIT REQUIREMENTS

---

1. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The NOx emissions during steady state operation shall not exceed 5 ppmvd @15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
5. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O2 as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM10 emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM10 shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM10 emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to determine compliance with the NOx, CO, VOC, PM10 and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM10 emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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
23. 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
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NOx emissions shall be reported as NO2. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SOx - CARB Method 100, PM10 - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 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.

27. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
28. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
29. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
33. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
34. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
36. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
37. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

38. A record of the combined quarterly and annual NOx, VOC and PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
39. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined annual CO and SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
45. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
46. All records shall be maintained and retained on-site for a minimum of five 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.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-3233-10-0

**EXPIRATION DATE:** 11/30/2015

**EQUIPMENT DESCRIPTION:**

WARTSILA 20V34SG NATURAL GAS FIRED IC ENGINE POWERING AN 8.44 MW GENERATOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3E).

## PERMIT UNIT REQUIREMENTS

---

1. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The NOx emissions during steady state operation shall not exceed 5 ppmvd @15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
5. The NOx emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O2, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O2 as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The SOx emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM10 emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM10 shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined NOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

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

14. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM10 emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to determine compliance with the NOx, CO, VOC, PM10 and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM10 emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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
23. 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
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NOx emissions shall be reported as NO2. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SOx - CARB Method 100, PM10 - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 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.

27. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
28. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
29. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
33. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
34. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
36. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
37. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

38. A record of the combined quarterly and annual NOx, VOC and PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
39. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined annual CO and SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
45. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
46. All records shall be maintained and retained on-site for a minimum of five 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.

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-3233-11-0

EXPIRATION DATE: 11/30/2015

## EQUIPMENT DESCRIPTION:

WARTSILA 20V34SG NATURAL GAS FIRED IC ENGINE POWERING AN 8.44 MW GENERATOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND AN OXIDATION CATALYST (MODESTO IRRIGATION DISTRICT DESIGNATION 3F).

## PERMIT UNIT REQUIREMENTS

---

1. The unit shall be fueled solely with PUC quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The combined start-up and shutdown duration of this unit shall not exceed 2 hours during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined start-up and shutdown duration for permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 2010 hours during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The NO<sub>x</sub> emissions during steady state operation shall not exceed 5 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
5. The NO<sub>x</sub> emissions during start-up and shutdown periods shall not exceed 9.48 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CO emissions during steady state operation shall not exceed 13 ppmvd @ 15% O<sub>2</sub>, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
7. The CO emissions during start-up and shutdown periods shall not exceed 14.3 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The VOC emissions during steady state operation shall not exceed 20 ppmvd @ 15% O<sub>2</sub> as methane, over a 3 hour averaging period. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. The VOC emissions during start-up and shutdown periods shall not exceed 7.53 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The SO<sub>x</sub> emissions shall not exceed 0.4 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM<sub>10</sub> emissions shall not exceed 1.3 lb/hr. The filterable portion of the PM<sub>10</sub> shall not exceed 0.02 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emissions shall not exceed 10 ppmvd @ 15% O<sub>2</sub> over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined NO<sub>x</sub> emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 12,049 pounds during the first calendar quarter, 12,049 pounds during the second calendar quarter, 12,049 pounds during the third calendar quarter and 12,050 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The combined CO emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 74,864 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined VOC emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 13,920 pounds during the first calendar quarter, 13,920 pounds during the second calendar quarter, 13,920 pounds during the third calendar quarter and 13,921 pounds during the fourth calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 49,993 lb/yr, based on a 12-month rolling total. The start-up and shutdown period contributions shall be determined utilizing the number of start-up and shutdown hours in combination with the start-up and shutdown period emission limit. The steady-state contribution shall be determined utilizing the fuel usage during the previous 12 months and the VOC emission concentration determined during the most recent District approved source test or representative testing allowed by the District. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 9,600 pounds during any one calendar year. The SOx emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The combined PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall not exceed 7,800 pounds during the first calendar quarter, 7,800 pounds during the second calendar quarter, 7,800 pounds during the third calendar quarter and 7,800 pounds during the fourth calendar quarter. The PM10 emissions shall be determined by applying the hourly emission limit of these permits to the combined number of operating hours of these engines. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to determine compliance with the NOx, CO, VOC, PM10 and ammonia emission limits of this permit shall be conducted not less than once every 12 months. The filterable and condensable PM10 emissions shall be determined separately. Representative testing, as specified in Rule 4702, may be allowed provided prior written District authorization is received. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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
23. 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
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane and the NOx emissions shall be reported as NO2. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, SOx - CARB Method 100, PM10 - EPA Methods 201A and 202 and ammonia - BAAQMD Method ST-1B. Alternative source test methods are allowed provided prior written District authorization is received. [District Rules 1081, 2201 and 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.

27. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) on each engine exhaust that continuously measures and records the exhaust gas NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns. [District Rules 1080 and 4702 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
28. NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR Part 60, Appendix F and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
29. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
30. The CEMS data shall be reduced to hourly averages as specified in 40 CFR Part 60 section 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. In accordance with 40 CFR Part 60, Appendix F, each CEMS shall be audited at least once each calendar quarter. A CEMS audit is not required for the quarters in which both a relative accuracy test audit (RATA) and source testing were performed. The District shall be notified prior to completion of the audits. The audit reports and the quarterly compliance reports shall be submitted to the District. [District Rule 1080 and 40 CFR 60.8 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
32. The owner or operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
33. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
34. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period that a continuous monitoring system or monitoring device was inoperative. [District Rule 1080 and 2201 and 40 CFR 60.7(f)] Federally Enforceable Through Title V Permit
36. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NO<sub>x</sub> emissions, nature and the cause of excess emissions (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.7(c) and (d)] Federally Enforceable Through Title V Permit
37. Records of the facility-wide CO and SO<sub>x</sub> emissions shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

38. A record of the combined quarterly and annual NOx, VOC and PM10 emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar quarter and a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
39. A record of the combined VOC emissions from units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11, based on a 12 month rolling total, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
40. A record of the combined annual CO and SOx emissions from permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
41. A record of the combined number of hours of operation of permit units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
42. A record of the daily number of hours of start-up and shutdown time for this unit shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
43. A record of the combined number of hours of start-up and shutdown time for units N-3233-6, N-3233-7, N-3233-8, N-3233-9, N-3233-10 and N-3233-11 shall be kept. The records shall be kept on a calendar year basis and shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
44. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
45. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
46. All records shall be maintained and retained on-site for a minimum of five 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.