



JAN 14 2014

Mr. Edward Kent
California Power Holdings, LLC
16457 Avenue 24 ½
Chowchilla, CA 93610-9564

**Re: Notice of Significant Title V Permit Modification
District Facility # C-3775
Project # C-1132109**

Dear Mr. Kent:

Enclosed for your review is the District's analysis of an application for significant Title V permit modification for the facility identified above. California Power Holdings, LLC is proposing a Title V significant permit modification to existing Title V operating permits to reflect the changes in requirements of 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutant (NESHAP) for Stationary Reciprocating Internal Combustion Engines) upon final amendments to this Subpart on January 30, 2013.

Enclosed are the current Title V permit, proposed modified Title V permit, engineering evaluation, and application. The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the modified Title V operating permit. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "D. Warner", with a long horizontal flourish extending to the right.

David Warner
Director of Permit Services

Enclosures

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

TITLE V APPLICATION REVIEW

Significant Modification

Project #: C-1132109

Engineer: Gurpreet Brar

Date: January 3, 2014

Facility Number: C-3775
Facility Name: California Power Holdings, LLC
Mailing Address: 16457 Avenue 24 ½
Chowchilla, CA 93610-9564

Contact Name: Edward Kent
Phone: (856) 206-0930

Responsible Official: Edward Kent
Title: SVP Operations

I. PROPOSAL

California Power Holdings, LLC (CPH) is proposing a Title V significant permit modification of their existing Title V operating permits for the natural gas peaker plant to reflect the changes in requirements of 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutant (NESHAP) for Stationary Reciprocating Internal Combustion Engines) because of the final amendments to this Subpart on January 30, 2013. The final amendments by EPA have changed the requirements applicable to CHP's existing Title V permits that were placed during initial Title V permitting process. The details are stated in Section VI of this document.

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

California Power Holdings, LLC is located at 16457 Avenue 24 ½, Chowchilla, in Madera County, CA.

III. EQUIPMENT DESCRIPTION

Permit Units C-3775-1-7 through -16-7 are identical in all aspects and will have the following equipment description.

C-3775-X-7: 4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN
NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE
CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC
CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

IV. SCOPE OF EPA AND PUBLIC REVIEW

This change to a Title V permit is considered to be a significant modification as the facility has proposed a relaxation in the monitoring requirements as per latest amendments to 40 CFR Part 63 Subpart ZZZZ (NESHAP RICE) . As such, this project requires public review.

V. APPLICABLE REQUIREMENTS

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

VI. DESCRIPTION OF PROPOSED MODIFICATIONS

California Power Holdings, LLC (CPH) has applied for the modification of sixteen Title V permits to comply with the latest amendment of Subpart ZZZZ. The permit units C-3775-1-7 through -16-7 are identical in all aspects and the description of the proposed modifications to current permits is described below:

- Condition 6 on the current PTO C-3775-1-6 will appear as condition 6 on the draft PTO C-3775-1-7 and is modified to correct the typo by changing facility id from C-3774 to C-3775.
- Condition 7 on the current PTO C-3775-1-6 appear as condition 7 on the draft PTO C-3775-1-7 and the reference to Subpart 40 CFR 63, ZZZZ has been removed from the condition. Compliance with the CO emission limit specified under Subpart ZZZZ would be addressed by condition 19 on the draft permit
- Condition 16 on the current PTO C-3775-1-6 will appear as condition 17 on the draft PTO C-3775-1-7.
- Condition 17 on the current PTO C-3775-1-6 has been removed based on the final amendment to this subpart as there is no stand-alone requirement in the regulation to record the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

- Condition 18 on the current PTO C-3775-1-6 for performance testing frequency to demonstrate compliance with CO emission requirement has been removed as it no longer applies based on the final amendment to this subpart and has been replaced by the condition 22 on the draft PTO C-3775-1-7. The proposed condition 22 on draft permit satisfies the requirement in Table 6 item #14 for stationary RICE 4SLB > 500 hp located at an area source of HAP; this requirement is to conduct annual compliance demonstrations as required by §63.6640(c) to show that the average CO concentration is less than or equal to 47 ppmvd at 15% O₂.
- Condition 19 on the current PTO C-3775-1-6 has been replaced by the condition 18 on the draft PTO C-3775-1-7 based on section 63.6625(h) in the final amendment of this subpart.
- Condition 20 on the current PTO C-3775-1-6 has been replaced by the condition 20 on the draft PTO C-3775-1-7 based on the final amendment to this subpart. The facility will install a temperature shutdown device to immediately shutdown the engine if the catalyst inlet temperature exceeds 1350°F, as allowed by Subpart ZZZZ Table 6 Requirement # 14(iii) instead of maintaining the pre-catalyst exhaust temperature range to remain between 450°F and 1350°F based on a 4-hour rolling average.
- Condition 21 & 22 on the current PTO C-3775-1-6 have been removed as the facility has elected to comply with CO concentration limit rather than CO % reduction requirement as per Subpart ZZZZ Table 6 Requirement # 14(i).
- Condition 23 to 29, 32 & 33 on the current PTO C-3775-1-6 have been removed as these are based on the requirement to install a Continuous Parameter Monitoring System (CPMS) that originally appeared in 40 CFR 63 Subpart ZZZZ Table 5 Requirements #1 and #2 of the 2010 regulation. However, the Table 5 requirement in the current regulation is # 13(ii), which requires installation of a CPMS, or installation of equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350°F. The facility has elected to comply with latter; therefore, the conditions related to CPMS are not required.
- Condition 30 on the current PTO C-3775-1-6 has been modified and appear as condition 21 on the draft PTO C-3775-1-7. The term "after-treatment control device" in this condition has been changed to "oxidation catalyst" to match the language in the Subpart ZZZZ Table 6 Requirement # 14(a) requirement that is applicable to the permit unit.
- Condition 31 on the current PTO C-3775-1-6 has been updated and appear as condition 29 on the draft PTO C-3775-1-7 based on the section 63.6655(a)(2) & (5) in the final amendment of this subpart
- Condition 34 on the current PTO C-3775-1-6 has been updated and appear as condition 32 on the draft PTO C-3775-1-7 based on the section 63.6640(b) in the final amendment of this subpart.

- Condition 38 on the current PTO C-3775-1-6 appear as condition 28 on the draft PTO C-3775-1-7 based on the Table 3 in the Subpart ZZZZ.
- Condition 39 on the current PTO C-3775-1-6 has been updated and appear as condition 33 on the draft PTO C-3775-1-7 based on the section 63.6645(h)(2) in the final amendment of this subpart.
- Condition 19 on the draft PTO C-3775-1-7 has been added to demonstrate compliance with CO emissions limit of 47 ppmv @ 15% O₂ as required by Table 6 Requirement # 14(i) in the final amendment of Subpart ZZZZ.
- Condition 22 on the draft PTO C-3775-1-7 has been added to specifies the requirement for annual compliance demonstration based on section 63.6615/66.6620 and Table 3, Row 4 in the final amendment of this subpart.
- Condition 23 to 26 on the draft PTO C-3775-1-7 has been added to specify the requirements and methods for the annual compliance demonstration as per section 63.6612/66.6620/66.6640 and Table 4, Row 1 in the final amendment of Subpart ZZZZ.
- Condition 27 on the draft PTO C-3775-1-7 has been added to specify the requirement for corrective action as per section 66.6640 (c)(7) in the final amendment of Subpart ZZZZ.
- Condition 31 and 32 have been added on the draft PTO C-3775-1-7 to ensure compliance with section 63.6640(b) in the final amendment of Subpart ZZZZ.
- Condition 34 and 35 have been added on the draft PTO C-3775-1-7 to specify compliance reporting requirements in section 63.6650(b)(1)-(5) in the final amendment of Subpart ZZZZ.

VII. COMPLIANCE

District Rule 2520, Section 6.0 describes the source's ability to make changes including significant permit modification. This modification does not meet the minor permit modification criteria pursuant to Section 3.20 described as follows.

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 11.3 by including;

1. The identification of the source, the name and address of the permit holder, the activities and emissions change involved in the permit action;
2. The name and address of the District, the name and telephone number of District staff to contact for additional information;
3. The availability, upon request, of a statement that sets forth the legal and factual basis for the proposed permit conditions;
4. The location where the public may inspect the complete application, the District analysis, the proposed permit, and all relevant supporting materials;
5. A statement that the public may submit written comments regarding the proposed decision within at least 30 days from the date of publication and a brief description of commenting procedures, and
6. A statement that members of the public may request the APCO or his designee to preside over a public hearing for the purpose of receiving oral public comment, if a hearing has not already been scheduled. The APCO shall provide notice of any public hearing scheduled to address the proposed decision at least 30 days prior to such hearing;

VIII. ATTACHMENTS

- A. Proposed Modified Title V Operating Permit No.'s C-3775-1-7 to C-3775-16-7
- B. Current Title V Operating Permit No.'s C-3775-1-6 to C-3775-16-6
- C. Emissions Increases
- D. Application

ATTACHMENT A

Proposed Modified Title V Operating Permit No.'s
C-3775-1-7 to C-3775-16-7

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-1-7

EXPIRATION DATE: 03/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [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.

12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee shall keep previous (i.e., superceded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. If the permittee changes the catalyst, a performance test shall be required to reestablish the values of the operating parameters. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall report to the District each instance in which the engine did not meet the emission requirements. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NOx, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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

56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [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: C-3775-2-7

EXPIRATION DATE: 03/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee shall keep previous (i.e., superceded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. If the permittee changes the catalyst, a performance test shall be required to reestablish the values of the operating parameters. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall report to the District each instance in which the engine did not meet the emission requirements. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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

56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-3-7

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [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.

12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee shall keep previous (i.e., superceded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. If the permittee changes the catalyst, a performance test shall be required to reestablish the values of the operating parameters. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall report to the District each instance in which the engine did not meet the emission requirements. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-4-7

EXPIRATION DATE: 03/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
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27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
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39. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
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44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-5-7

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. If the permittee changes the catalyst, a performance test shall be required to reestablish the values of the operating parameters. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall report to the District each instance in which the engine did not meet the emission requirements. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NOx, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-6-7

EXPIRATION DATE: 03/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [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.

12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. If the permittee changes the catalyst, a performance test shall be required to reestablish the values of the operating parameters. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall report to the District each instance in which the engine did not meet the emission requirements. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-7-7

EXPIRATION DATE: 03/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
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16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
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20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
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27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
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39. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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

56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-8-7

EXPIRATION DATE: 03/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. If the permittee changes the catalyst, a performance test shall be required to reestablish the values of the operating parameters. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall report to the District each instance in which the engine did not meet the emission requirements. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] 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.

48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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

56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-9-7

EXPIRATION DATE: 03/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. If the permittee changes the catalyst, a performance test shall be required to reestablish the values of the operating parameters. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall report to the District each instance in which the engine did not meet the emission requirements. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-10-7

EXPIRATION DATE: 03/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
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33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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

56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-11-7

EXPIRATION DATE: 03/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. If the permittee changes the catalyst, a performance test shall be required to reestablish the values of the operating parameters. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall report to the District each instance in which the engine did not meet the emission requirements. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] 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.

48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-12-7

EXPIRATION DATE: 03/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee shall keep previous (i.e., superceded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. If the permittee changes the catalyst, a performance test shall be required to reestablish the values of the operating parameters. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall report to the District each instance in which the engine did not meet the emission requirements. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NOx, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-13-7

EXPIRATION DATE: 03/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee shall keep previous (i.e., superceded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. If the permittee changes the catalyst, a performance test shall be required to reestablish the values of the operating parameters. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall report to the District each instance in which the engine did not meet the emission requirements. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-14-7

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee shall keep previous (i.e., superceded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. If the permittee changes the catalyst, a performance test shall be required to reestablish the values of the operating parameters. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall report to the District each instance in which the engine did not meet the emission requirements. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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

56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-15-7

EXPIRATION DATE: 03/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. If the permittee changes the catalyst, a performance test shall be required to reestablish the values of the operating parameters. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall report to the District each instance in which the engine did not meet the emission requirements. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NOx, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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

56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-16-7

EXPIRATION DATE: 03/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3775-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The engine shall be in full compliance with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. After startup the emission standards applicable are specified in Table 2d of 40 CFR Part 63 Subpart ZZZZ. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. The CO emissions from the engine shall not exceed 47 ppmvd @ 15% O₂ (equivalent to 0.399 g-CO/bhp-hr). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 F. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. The CO oxidation catalyst shall be maintained per manufacturer recommendations. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. The permittee shall conduct annual compliance tests to demonstrate compliance with the CO emission requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. Measurements to determine O₂ concentration must be made at the same time as the measurements for the CO concentration. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The compliance test shall consist of measuring the O₂ concentration at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 3 or Method 3A or 3B of 40 CFR part 60. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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25. The compliance test shall consist of measuring the CO concentration at 15 percent O₂, dry basis, at the inlet and outlet of the control device with the use of an analyzer following ASTM D6522-00 (2005), Method 10 of 40 CFR part 60 Appendix A, ASTM D6522-00 (2005), Method 320 of 40 CFR part 63 Appendix A, or ASTM 66348-03. The results of the test shall consist of the average of three 1-hour or longer runs. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The compliance test shall consist of measuring the moisture content at the inlet and outlet of the control device with the use of an analyzer following Method 4 of 40 CFR part 60 Appendix A, or Test Method 320 of 40 CFR part 63 Appendix A, or ASTM D 6348-03. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. If the results of the annual compliance demonstration show that the emissions exceed 47 ppmv @ 15% O₂, the permittee shall shut down the stationary RICE as soon as safely possible, and appropriate corrective action must be taken (e.g. repairs, catalyst cleaning, catalyst replacement). The engine must be retested within 7 days of being restarted and meet the CO emission standards. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee shall keep previous (i.e., superceded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. If the permittee changes the catalyst, a performance test shall be required to reestablish the values of the operating parameters. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. The permittee shall report to the District each instance in which the engine did not meet the emission requirements. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall submit the source test results, and Notification of compliance status, including the performance test results, before the close of business on the 60th day following the completion of the source test or the performance test. [District Rule 1081 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. The permittee shall submit a compliance report that covers between Oct 19 and Jun 30. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 3. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. The permittee shall submit a compliance report that must be postmarked and delivered no later than July 31. Each subsequent compliance report must be postmarked and delivered no later than July 31. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
36. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
38. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
39. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
40. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
42. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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48. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
49. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
50. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
51. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
52. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained on-site for a period of at least 5 years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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56. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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ATTACHMENT B

Current Title V Operating Permit No.'s
C-3775-1-6 to C-3775-16-6

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-1-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. An initial performance test pursuant to section 63.6620 of 40 CFR 63, ZZZZ, shall be conducted no later than 180 days after the initial compliance date of October 19, 2013 to demonstrate compliance with the CO emission requirement. The catalyst pressure drop and catalyst inlet temperature shall be recorded during the initial test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. Performance testing subsequent to the initial performance test to demonstrate compliance with the CO emission requirement shall be conducted every 8,760 hours of operation or every 36 months whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. During startup periods the catalyst temperature and catalyst pressure drop limits of subpart ZZZZ do not apply. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
20. On and after October 19, 2013, the pre-catalyst exhaust temperature range shall remain between 450 - 1350 degrees F based on a 4-hour rolling average. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. Following the initial performance test, catalyst pressure drop shall not change by more than 2 inches of water at maximum achievable output plus or minus 10% from the pressure drop that was measured during the initial performance test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. Following the initial performance test, catalyst pressure drop shall be measured and recorded monthly to demonstrate compliance with the pressure drop change limit. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. On and after October 19, 2013, a Continuous Parameter Monitoring System (CPMS) shall be used to verify compliance with the temperature limits. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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24. The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements identified in (i) through (v) as follows, or a site-specific District approved plan. (i) the performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; (ii) sampling interface (temperature sensor) location such that the monitoring system will provide representative measurements; (iii) equipment performance evaluations, system accuracy audits, or other audit procedures; (iv) ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and (v) ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. By October 19, 2013 and thereafter, the CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the site-specific monitoring plan. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The CPMS must measure the pre-catalyst exhaust temperature at least once every 15 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
30. On and after October 19, 2013, the CO after-treatment control device shall be maintained per manufacturer recommendations. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
31. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visible emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
37. At the District's discretion, source testing to determine compliance with the start-up NOx, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-2-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [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.

12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. An initial performance test pursuant to section 63.6620 of 40 CFR 63, ZZZZ, shall be conducted no later than 180 days after the initial compliance date of October 19, 2013 to demonstrate compliance with the CO emission requirement. The catalyst pressure drop and catalyst inlet temperature shall be recorded during the initial test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. Performance testing subsequent to the initial performance test to demonstrate compliance with the CO emission requirement shall be conducted every 8,760 hours of operation or every 36 months whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. During startup periods the catalyst temperature and catalyst pressure drop limits of subpart ZZZZ do not apply. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
20. On and after October 19, 2013, the pre-catalyst exhaust temperature range shall remain between 450 - 1350 degrees F based on a 4-hour rolling average. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. Following the initial performance test, catalyst pressure drop shall not change by more than 2 inches of water at maximum achievable output plus or minus 10% from the pressure drop that was measured during the initial performance test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. Following the initial performance test, catalyst pressure drop shall be measured and recorded monthly to demonstrate compliance with the pressure drop change limit. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. On and after October 19, 2013, a Continuous Parameter Monitoring System (CPMS) shall be used to verify compliance with the temperature limits. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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24. The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements identified in (i) through (v) as follows, or a site-specific District approved plan. (i) the performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; (ii) sampling interface (temperature sensor) location such that the monitoring system will provide representative measurements; (iii) equipment performance evaluations, system accuracy audits, or other audit procedures; (iv) ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and (v) ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. By October 19, 2013 and thereafter, the CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the site-specific monitoring plan. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The CPMS must measure the pre-catalyst exhaust temperature at least once every 15 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
30. On and after October 19, 2013, the CO after-treatment control device shall be maintained per manufacturer recommendations. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
31. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visible emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
37. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-3-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
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15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
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18. Performance testing subsequent to the initial performance test to demonstrate compliance with the CO emission requirement shall be conducted every 8,760 hours of operation or every 36 months whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. During startup periods the catalyst temperature and catalyst pressure drop limits of subpart ZZZZ do not apply. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
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24. The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements identified in (i) through (v) as follows, or a site-specific District approved plan. (i) the performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; (ii) sampling interface (temperature sensor) location such that the monitoring system will provide representative measurements; (iii) equipment performance evaluations, system accuracy audits, or other audit procedures; (iv) ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and (v) ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. By October 19, 2013 and thereafter, the CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the site-specific monitoring plan. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The CPMS must measure the pre-catalyst exhaust temperature at least once every 15 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
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33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

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36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
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38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-4-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
37. At the District's discretion, source testing to determine compliance with the start-up NOx, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-5-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. An initial performance test pursuant to section 63.6620 of 40 CFR 63, ZZZZ, shall be conducted no later than 180 days after the initial compliance date of October 19, 2013 to demonstrate compliance with the CO emission requirement. The catalyst pressure drop and catalyst inlet temperature shall be recorded during the initial test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. Performance testing subsequent to the initial performance test to demonstrate compliance with the CO emission requirement shall be conducted every 8,760 hours of operation or every 36 months whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. During startup periods the catalyst temperature and catalyst pressure drop limits of subpart ZZZZ do not apply. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
20. On and after October 19, 2013, the pre-catalyst exhaust temperature range shall remain between 450 - 1350 degrees F based on a 4-hour rolling average. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. Following the initial performance test, catalyst pressure drop shall not change by more than 2 inches of water at maximum achievable output plus or minus 10% from the pressure drop that was measured during the initial performance test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. Following the initial performance test, catalyst pressure drop shall be measured and recorded monthly to demonstrate compliance with the pressure drop change limit. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. On and after October 19, 2013, a Continuous Parameter Monitoring System (CPMS) shall be used to verify compliance with the temperature limits. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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24. The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements identified in (i) through (v) as follows, or a site-specific District approved plan. (i) the performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; (ii) sampling interface (temperature sensor) location such that the monitoring system will provide representative measurements; (iii) equipment performance evaluations, system accuracy audits, or other audit procedures; (iv) ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and (v) ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. By October 19, 2013 and thereafter, the CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the site-specific monitoring plan. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The CPMS must measure the pre-catalyst exhaust temperature at least once every 15 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
30. On and after October 19, 2013, the CO after-treatment control device shall be maintained per manufacturer recommendations. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
31. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visible emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
37. At the District's discretion, source testing to determine compliance with the start-up NOx, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [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: C-3775-6-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. An initial performance test pursuant to section 63.6620 of 40 CFR 63, ZZZZ, shall be conducted no later than 180 days after the initial compliance date of October 19, 2013 to demonstrate compliance with the CO emission requirement. The catalyst pressure drop and catalyst inlet temperature shall be recorded during the initial test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. Performance testing subsequent to the initial performance test to demonstrate compliance with the CO emission requirement shall be conducted every 8,760 hours of operation or every 36 months whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. During startup periods the catalyst temperature and catalyst pressure drop limits of subpart ZZZZ do not apply. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
20. On and after October 19, 2013, the pre-catalyst exhaust temperature range shall remain between 450 - 1350 degrees F based on a 4-hour rolling average. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. Following the initial performance test, catalyst pressure drop shall not change by more than 2 inches of water at maximum achievable output plus or minus 10% from the pressure drop that was measured during the initial performance test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. Following the initial performance test, catalyst pressure drop shall be measured and recorded monthly to demonstrate compliance with the pressure drop change limit. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. On and after October 19, 2013, a Continuous Parameter Monitoring System (CPMS) shall be used to verify compliance with the temperature limits. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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24. The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements identified in (i) through (v) as follows, or a site-specific District approved plan. (i) the performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; (ii) sampling interface (temperature sensor) location such that the monitoring system will provide representative measurements; (iii) equipment performance evaluations, system accuracy audits, or other audit procedures; (iv) ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and (v) ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. By October 19, 2013 and thereafter, the CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the site-specific monitoring plan. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The CPMS must measure the pre-catalyst exhaust temperature at least once every 15 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
30. On and after October 19, 2013, the CO after-treatment control device shall be maintained per manufacturer recommendations. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
31. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visible emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
37. At the District's discretion, source testing to determine compliance with the start-up NOx, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-7-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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27. The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
30. On and after October 19, 2013, the CO after-treatment control device shall be maintained per manufacturer recommendations. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
31. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visible emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
37. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-8-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. An initial performance test pursuant to section 63.6620 of 40 CFR 63, ZZZZ, shall be conducted no later than 180 days after the initial compliance date of October 19, 2013 to demonstrate compliance with the CO emission requirement. The catalyst pressure drop and catalyst inlet temperature shall be recorded during the initial test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. Performance testing subsequent to the initial performance test to demonstrate compliance with the CO emission requirement shall be conducted every 8,760 hours of operation or every 36 months whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. During startup periods the catalyst temperature and catalyst pressure drop limits of subpart ZZZZ do not apply. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
20. On and after October 19, 2013, the pre-catalyst exhaust temperature range shall remain between 450 - 1350 degrees F based on a 4-hour rolling average. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. Following the initial performance test, catalyst pressure drop shall not change by more than 2 inches of water at maximum achievable output plus or minus 10% from the pressure drop that was measured during the initial performance test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. Following the initial performance test, catalyst pressure drop shall be measured and recorded monthly to demonstrate compliance with the pressure drop change limit. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. On and after October 19, 2013, a Continuous Parameter Monitoring System (CPMS) shall be used to verify compliance with the temperature limits. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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24. The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements identified in (i) through (v) as follows, or a site-specific District approved plan. (i) the performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; (ii) sampling interface (temperature sensor) location such that the monitoring system will provide representative measurements; (iii) equipment performance evaluations, system accuracy audits, or other audit procedures; (iv) ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and (v) ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. By October 19, 2013 and thereafter, the CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the site-specific monitoring plan. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The CPMS must measure the pre-catalyst exhaust temperature at least once every 15 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
30. On and after October 19, 2013, the CO after-treatment control device shall be maintained per manufacturer recommendations. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
31. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visible emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
37. At the District's discretion, source testing to determine compliance with the start-up NOx, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-9-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. An initial performance test pursuant to section 63.6620 of 40 CFR 63, ZZZZ, shall be conducted no later than 180 days after the initial compliance date of October 19, 2013 to demonstrate compliance with the CO emission requirement. The catalyst pressure drop and catalyst inlet temperature shall be recorded during the initial test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. Performance testing subsequent to the initial performance test to demonstrate compliance with the CO emission requirement shall be conducted every 8,760 hours of operation or every 36 months whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. During startup periods the catalyst temperature and catalyst pressure drop limits of subpart ZZZZ do not apply. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
20. On and after October 19, 2013, the pre-catalyst exhaust temperature range shall remain between 450 - 1350 degrees F based on a 4-hour rolling average. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. Following the initial performance test, catalyst pressure drop shall not change by more than 2 inches of water at maximum achievable output plus or minus 10% from the pressure drop that was measured during the initial performance test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. Following the initial performance test, catalyst pressure drop shall be measured and recorded monthly to demonstrate compliance with the pressure drop change limit. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. On and after October 19, 2013, a Continuous Parameter Monitoring System (CPMS) shall be used to verify compliance with the temperature limits. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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24. The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements identified in (i) through (v) as follows, or a site-specific District approved plan. (i) the performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; (ii) sampling interface (temperature sensor) location such that the monitoring system will provide representative measurements; (iii) equipment performance evaluations, system accuracy audits, or other audit procedures; (iv) ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and (v) ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. By October 19, 2013 and thereafter, the CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the site-specific monitoring plan. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The CPMS must measure the pre-catalyst exhaust temperature at least once every 15 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
30. On and after October 19, 2013, the CO after-treatment control device shall be maintained per manufacturer recommendations. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
31. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visible emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 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.

36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
37. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-10-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. An initial performance test pursuant to section 63.6620 of 40 CFR 63, ZZZZ, shall be conducted no later than 180 days after the initial compliance date of October 19, 2013 to demonstrate compliance with the CO emission requirement. The catalyst pressure drop and catalyst inlet temperature shall be recorded during the initial test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. Performance testing subsequent to the initial performance test to demonstrate compliance with the CO emission requirement shall be conducted every 8,760 hours of operation or every 36 months whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. During startup periods the catalyst temperature and catalyst pressure drop limits of subpart ZZZZ do not apply. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
20. On and after October 19, 2013, the pre-catalyst exhaust temperature range shall remain between 450 - 1350 degrees F based on a 4-hour rolling average. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. Following the initial performance test, catalyst pressure drop shall not change by more than 2 inches of water at maximum achievable output plus or minus 10% from the pressure drop that was measured during the initial performance test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. Following the initial performance test, catalyst pressure drop shall be measured and recorded monthly to demonstrate compliance with the pressure drop change limit. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. On and after October 19, 2013, a Continuous Parameter Monitoring System (CPMS) shall be used to verify compliance with the temperature limits. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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24. The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements identified in (i) through (v) as follows, or a site-specific District approved plan. (i) the performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; (ii) sampling interface (temperature sensor) location such that the monitoring system will provide representative measurements; (iii) equipment performance evaluations, system accuracy audits, or other audit procedures; (iv) ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and (v) ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. By October 19, 2013 and thereafter, the CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the site-specific monitoring plan. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The CPMS must measure the pre-catalyst exhaust temperature at least once every 15 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
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32. On and after October 19, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visible emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

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36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
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38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-11-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
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16. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
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38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [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: C-3775-12-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. An initial performance test pursuant to section 63.6620 of 40 CFR 63, ZZZZ, shall be conducted no later than 180 days after the initial compliance date of October 19, 2013 to demonstrate compliance with the CO emission requirement. The catalyst pressure drop and catalyst inlet temperature shall be recorded during the initial test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. Performance testing subsequent to the initial performance test to demonstrate compliance with the CO emission requirement shall be conducted every 8,760 hours of operation or every 36 months whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. During startup periods the catalyst temperature and catalyst pressure drop limits of subpart ZZZZ do not apply. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
20. On and after October 19, 2013, the pre-catalyst exhaust temperature range shall remain between 450 - 1350 degrees F based on a 4-hour rolling average. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. Following the initial performance test, catalyst pressure drop shall not change by more than 2 inches of water at maximum achievable output plus or minus 10% from the pressure drop that was measured during the initial performance test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. Following the initial performance test, catalyst pressure drop shall be measured and recorded monthly to demonstrate compliance with the pressure drop change limit. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. On and after October 19, 2013, a Continuous Parameter Monitoring System (CPMS) shall be used to verify compliance with the temperature limits. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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24. The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements identified in (i) through (v) as follows, or a site-specific District approved plan. (i) the performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; (ii) sampling interface (temperature sensor) location such that the monitoring system will provide representative measurements; (iii) equipment performance evaluations, system accuracy audits, or other audit procedures; (iv) ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and (v) ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. By October 19, 2013 and thereafter, the CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the site-specific monitoring plan. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The CPMS must measure the pre-catalyst exhaust temperature at least once every 15 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
30. On and after October 19, 2013, the CO after-treatment control device shall be maintained per manufacturer recommendations. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
31. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visible emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 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.

36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
37. At the District's discretion, source testing to determine compliance with the start-up NOx, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [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: C-3775-13-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
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15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. An initial performance test pursuant to section 63.6620 of 40 CFR 63, ZZZZ, shall be conducted no later than 180 days after the initial compliance date of October 19, 2013 to demonstrate compliance with the CO emission requirement. The catalyst pressure drop and catalyst inlet temperature shall be recorded during the initial test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. Performance testing subsequent to the initial performance test to demonstrate compliance with the CO emission requirement shall be conducted every 8,760 hours of operation or every 36 months whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. During startup periods the catalyst temperature and catalyst pressure drop limits of subpart ZZZZ do not apply. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
20. On and after October 19, 2013, the pre-catalyst exhaust temperature range shall remain between 450 - 1350 degrees F based on a 4-hour rolling average. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. Following the initial performance test, catalyst pressure drop shall not change by more than 2 inches of water at maximum achievable output plus or minus 10% from the pressure drop that was measured during the initial performance test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. Following the initial performance test, catalyst pressure drop shall be measured and recorded monthly to demonstrate compliance with the pressure drop change limit. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
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24. The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements identified in (i) through (v) as follows, or a site-specific District approved plan. (i) the performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; (ii) sampling interface (temperature sensor) location such that the monitoring system will provide representative measurements; (iii) equipment performance evaluations, system accuracy audits, or other audit procedures; (iv) ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and (v) ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. By October 19, 2013 and thereafter, the CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the site-specific monitoring plan. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The CPMS must measure the pre-catalyst exhaust temperature at least once every 15 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
30. On and after October 19, 2013, the CO after-treatment control device shall be maintained per manufacturer recommendations. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
31. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visible emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
37. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-14-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
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11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
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31. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visible emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
37. At the District's discretion, source testing to determine compliance with the start-up NO_x, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NO_x emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NO_x concentrations which are less than the allowed maximum. The relationship between concentration of NO_x and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-15-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. An initial performance test pursuant to section 63.6620 of 40 CFR 63, ZZZZ, shall be conducted no later than 180 days after the initial compliance date of October 19, 2013 to demonstrate compliance with the CO emission requirement. The catalyst pressure drop and catalyst inlet temperature shall be recorded during the initial test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. Performance testing subsequent to the initial performance test to demonstrate compliance with the CO emission requirement shall be conducted every 8,760 hours of operation or every 36 months whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. During startup periods the catalyst temperature and catalyst pressure drop limits of subpart ZZZZ do not apply. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
20. On and after October 19, 2013, the pre-catalyst exhaust temperature range shall remain between 450 - 1350 degrees F based on a 4-hour rolling average. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. Following the initial performance test, catalyst pressure drop shall not change by more than 2 inches of water at maximum achievable output plus or minus 10% from the pressure drop that was measured during the initial performance test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. Following the initial performance test, catalyst pressure drop shall be measured and recorded monthly to demonstrate compliance with the pressure drop change limit. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. On and after October 19, 2013, a Continuous Parameter Monitoring System (CPMS) shall be used to verify compliance with the temperature limits. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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24. The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements identified in (i) through (v) as follows, or a site-specific District approved plan. (i) the performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; (ii) sampling interface (temperature sensor) location such that the monitoring system will provide representative measurements; (iii) equipment performance evaluations, system accuracy audits, or other audit procedures; (iv) ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and (v) ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. By October 19, 2013 and thereafter, the CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the site-specific monitoring plan. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The CPMS must measure the pre-catalyst exhaust temperature at least once every 15 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
30. On and after October 19, 2013, the CO after-treatment control device shall be maintained per manufacturer recommendations. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
31. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visible emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
37. At the District's discretion, source testing to determine compliance with the start-up NOx, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-16-6

EXPIRATION DATE: 05/31/2017

EQUIPMENT DESCRIPTION:

4,157 HP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3100 KW ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
6. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) - 9.0 ppmvd @ 15% O₂ (equivalent to 0.10 g/hp-hr), CO - 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC - 30.0 ppmvd @ 15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ - 0.029 g/hp-hr; or SO_x - 0.009 g/hp-hr. Compliance with the NO_x, CO, and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rules 2201 and 4702; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period beginning with the engine's initial fuel firing until the unit meets the ppmv emission limits in this permit. Shutdown is defined as the period beginning with the initiation of the engine shutdown sequence and ending with cessation of operation of the engine. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NO_x (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂ (equivalent to 0.043 g/hp-hr). Compliance with the NH₃ limit shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NO_x (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SO_x - 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with the Daily Emission Limits (DEL) for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Daily Emission Limit (lb/day) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/day), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/day), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed three and a half (3.5 hrs) during the day, the permittee may demonstrate compliance with the DEL by simply keeping records of daily start-up/shutdown hours operated and daily full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Annual emissions from the IC engine shall not exceed any of the following limits: NO_x - 8,811 lb/year, CO - 11,409 lb/year, VOC - 9,760 lb/year, PM₁₀ - 2,328 lb/year, SO_x (as SO₂) - 723 lb/year, or NH₃ - 3,464 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with the Annual Emission Limits for NO_x, CO, and VOC shall be demonstrated utilizing the following calculation procedure: Annual Emission Limit (lb/year) = (a x b) + (c x (d x e ÷ f)), where a = start-up/shutdown hours operated (hr/year), b = start-up/shutdown mass emission rate (lb/hr), c = full-load hours operated (hr/year), d = full-load emission factor (g/hp-hr), e = 4,157 hp (max engine horsepower), and f = 453.6 g/lb (grams to pound conversion factor). Alternatively, if start-up/shutdown hours do not exceed 133 hours during the year, the permittee may demonstrate compliance with the annual limit by simply keeping records of annual start-up/shutdown hours operated and annual full-load hours operated. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
16. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
17. An initial performance test pursuant to section 63.6620 of 40 CFR 63, ZZZZ, shall be conducted no later than 180 days after the initial compliance date of October 19, 2013 to demonstrate compliance with the CO emission requirement. The catalyst pressure drop and catalyst inlet temperature shall be recorded during the initial test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
18. Performance testing subsequent to the initial performance test to demonstrate compliance with the CO emission requirement shall be conducted every 8,760 hours of operation or every 36 months whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
19. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. During startup periods the catalyst temperature and catalyst pressure drop limits of subpart ZZZZ do not apply. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
20. On and after October 19, 2013, the pre-catalyst exhaust temperature range shall remain between 450 - 1350 degrees F based on a 4-hour rolling average. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
21. Following the initial performance test, catalyst pressure drop shall not change by more than 2 inches of water at maximum achievable output plus or minus 10% from the pressure drop that was measured during the initial performance test. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
22. Following the initial performance test, catalyst pressure drop shall be measured and recorded monthly to demonstrate compliance with the pressure drop change limit. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
23. On and after October 19, 2013, a Continuous Parameter Monitoring System (CPMS) shall be used to verify compliance with the temperature limits. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

24. The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements identified in (i) through (v) as follows, or a site-specific District approved plan. (i) the performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; (ii) sampling interface (temperature sensor) location such that the monitoring system will provide representative measurements; (iii) equipment performance evaluations, system accuracy audits, or other audit procedures; (iv) ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and (v) ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
25. By October 19, 2013 and thereafter, the CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the site-specific monitoring plan. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
26. The CPMS must measure the pre-catalyst exhaust temperature at least once every 15 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
27. The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall keep records of requests for alternatives to the relative accuracy test for the CMPS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
30. On and after October 19, 2013, the CO after-treatment control device shall be maintained per manufacturer recommendations. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
31. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visible emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
34. The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
35. NO_x, CO, VOC, and NH₃ emissions rates shall be measured (source tested) not less than once every 12 months. [District Rules 1081 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.

36. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. Source testing may occur more frequently than once every 12 months at the discretion of the equipment owner or operator, if such frequency is necessary to schedule source testing during normal operating periods. Any source testing conducted more frequently than required, shall reset the 12 month testing clock. [District Rule 1081] Federally Enforceable Through Title V Permit
37. At the District's discretion, source testing to determine compliance with the start-up NOx, CO, and VOC emission limits may be required. The source test protocol shall propose a start-up test methodology, which, at a minimum, specifies that compliance with the start-up limitations will be based on the arithmetic average of a minimum of three (3) 30-consecutive-minute test runs. [District Rule 4702] Federally Enforceable Through Title V Permit
38. Source testing or performance testing pursuant to 40 CFR 63, ZZZZ 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 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
39. The results of each source test or performance test pursuant to 40 CFR 63, ZZZZ shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
40. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
41. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Engine exhaust gas operating temperature shall be monitored daily. [40 CFR 64] Federally Enforceable Through Title V Permit
43. Proper operation of the urea dosing system shall be confirmed daily based on visual displays at control panel, visual inspection of the urea pump and visual inspection of the urea level in the sight glass of the dosing system. [40 CFR 64] Federally Enforceable Through Title V Permit
44. Proper engine operation shall be confirmed daily through monitoring of the engine parameters on the engine control system. [40 CFR 64] Federally Enforceable Through Title V Permit
45. The monitoring of engine exhaust temperature combined with confirmation of proper operation of the engine and of the urea dosing system shall serve as a surrogate for monitoring of NOx emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with exhaust gas temperature within the allowable range and proper operation of the engine and urea dosing system shall be indicative of NOx concentrations which are less than the allowed maximum. The relationship between concentration of NOx and engine exhaust temperature shall be demonstrated at each annual source test. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

49. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
50. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar quarter in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]
51. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4102 and 4702] Federally Enforceable Through Title V Permit
52. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
53. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702] Federally Enforceable Through Title V Permit
54. The permittee shall maintain an engine operating log for this engine. The log shall include, on a monthly basis, the total hours of operation (start-up/shutdown and full-load hours), type and quantity of fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with District Rule 4702. Quantity of fuel used shall be recorded in standard cubic feet and calculated as follows: Specific engine fuel use in standard cubic feet per month = Total facility fuel use in standard cubic feet per month x (Specific engine gross kW-hours per month) ÷ (Total facility gross kW-hours per month). [District Rule 4702] Federally Enforceable Through Title V Permit
55. The permittee shall maintain records of the total daily hours of operation, including start-up/shutdown and full-load hours. Also, if calculations are necessary to demonstrate compliance with the Daily and/or Annual Emission Limits within this permit, the permittee shall maintain the calculations performed and the date with which compliance was demonstrated. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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57. 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. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

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

ATTACHMENT C

Emission Increases

Draft Permit Number	Annual IPE (lb/year)
C-3775-1-7 to -16-7	0

ATTACHMENT D

Application

San Joaquin Valley Air Pollution Control District

www.valleyair.org

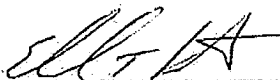
RECEIVED

JUN 27 2013

Permit Application For:

ADMINISTRATIVE AMENDMENT MINOR MODIFICATION SIGNIFICANT MODIFICATION

Permits Services
SJVAPCD

1. PERMIT TO BE ISSUED TO: California Power Holdings LLC (Facility ID C-3775)	
2. MAILING ADDRESS: STREET/P.O. BOX: <u>16457 Avenue 24 1/2</u> CITY: <u>Chowchilla</u> STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>93610-9564</u>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <u>16457 Avenue 24 1/2</u> CITY: <u>Chowchilla</u> _____ 1/4 SECTION _____ TOWNSHIP _____ RANGE _____	INSTALLATION DATE:
4. GENERAL NATURE OF BUSINESS: Power Generation	
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) 16 IDENTICAL PERMIT UNITS: 4,157 HP DEUTZ GMBH MODEL TBG632V 16 LEAN BURN NATURAL GAS FIRED IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND CO & VOC CATALYSTS, POWERING A 3,100 KW ELECTRICAL GENERATOR PERMIT UNIT NOS.: C-3775-1-6 C-3775-2-6 C-3775-3-6 C-3775-4-6 C-3775-5-6 C-3775-6-6 C-3775-7-6 C-3775-8-6 C-3775-9-6 C-3775-10-6 C-3775-11-6 C-3775-12-6 C-3775-13-6 C-3775-14-6 C-3775-15-6 C-3775-16-6	
6. TYPE OR PRINT NAME OF APPLICANT: <u>EDWARD KENT</u>	TITLE OF APPLICANT: <u>SVP OPERATIONS</u>
7. SIGNATURE OF APPLICANT: 	DATE: <u>6/20/2013</u>
PHONE: (856) 206 0930 FAX: (856) 206 0940 EMAIL: <u>Kent - E @ EWPRC.com</u>	

**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
 MINOR PERMIT MODIFICATION AMENDMENT

COMPANY NAME: California Power Holdings LLC	FACILITY ID: C-3775
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: EWP Renewable Corp.	
3. Agent to the Owner: BlueScape Environmental	

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 forgoing is correct and true:


Signature of Responsible Official

6/20/2013
Date

Edward Kent
Name of Responsible Official (please print)

SVP operations
Title of Responsible Official (please print)



B L U E S C A P E
E N V I R O N M E N T A L

June 18, 2013

SJVAPCD Permit Services
Attn: Mr. Dennis Roberts, PE
1990 E. Gettysburg Avenue
Fresno, California 93726-0224

Subject: Title V Air Permit Modification for California Power Holdings
Chowchilla Power Plant in Chowchilla, CA – Facility C-3775

Dear Mr. Roberts:

On behalf of California Power Holdings, LLC (CPH), BlueScape Environmental (BlueScape) is submitting this application to modify their existing Title V Permit for the natural gas peaker plant located at 16457 Avenue 24 ½ in Chowchilla, California (facility# C-3775).

The facility's Title V permit was last updated effective October 31, 2012 to reflect requirements in 40 CFR Part 63 Subpart ZZZZ (RICE NESHAP) that were expected to become effective in 2013. However, the final rule released on January 14, 2013 contains language amended from previous versions (2010 and 2011) that change the RICE NESHAP requirements applicable to CPH's permit units and already incorporated into the current Title V. This application for a Title V permit update is being submitted to reflect these changes to the final rule.

This letter discusses proposed changes to the Title V permit conditions for all 16 permit units at the Chowchilla plant. In addition, the following application documents are enclosed:

- TVFORM-008 *Title V modification form*
- TVFORM-009 *Compliance certification for modifications form*

CPH is requesting the following proposed condition changes to each permit unit:

Condition 7 *"Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NO_x (as NO₂) – 9.0 ppmvd @15% O₂ (equivalent to 0.10 g/hp-hr), CO – 20.0 ppmvd @ 15% O₂ (equivalent to 0.14 g/hp-hr), VOC – 30.0 ppmvd @15% O₂ (equivalent to 0.12 g/hp-hr), PM₁₀ – 0.029 g/hp-hr; or SO_x – 0.009 g/hp-hr.*

Compliance with the NO_x, CO and VOC limits in this condition only shall be based on the arithmetic average of three (3) 30-consecutive-minute test runs [District rules 2201 and 4702; 40 CFR 63, ZZZZ] "

CPH Comment

CPH proposes dropping the 40 CFR 63, ZZZZ citation from Condition 7. The CO limit in Subpart ZZZZ that is applicable to the permit units is 47 ppmvd at 15% O₂, or a 93% reduction in CO emissions. There are no emission limits specified by Subpart ZZZZ for NO_x, VOC, PM₁₀ or SO_x. Compliance with the 47 ppmvd limit specified under Subpart ZZZZ would be addressed by Condition 18.

Condition 17 *"An initial performance test pursuant to section 63.6620 of 40 CFR 63, ZZZZ, shall be conducted no later than 180 days after the initial compliance date of October 19, 2013 to demonstrate compliance with the CO emission requirement. The catalyst pressure drop and catalyst inlet temperature shall be recorded during the initial test [40 CFR 63, ZZZZ]"*

CPH Comment

CPH proposes changing Condition 17 to omit the requirement to record the catalyst pressure drop and catalyst inlet temperature during the initial performance test. Since 40 CFR 63 Subpart ZZZZ Table 2b in the final 2013 regulation no longer lists operating limitations for stationary RICE 4SLB > 500 hp located at an area source of hazardous air pollutants (HAP), the operating limitation to maintain pressure drop across the catalyst that was measured during the initial performance test does not apply to the permit units. There is no stand-alone requirement in the final 2013 regulation to record the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

Condition 18 *"Performance testing subsequent to the initial performance test to demonstrate compliance with the CO emission requirement shall be conducted every 8,760 hours of operation or every 36 months whichever comes first. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes changing Condition 18 to reflect the requirement for annual compliance demonstration as specified in §63.6640(e) to show compliance with the CO limit. 40 CFR 63 Subpart ZZZZ Table 3 no longer provides subsequent performance testing requirements for stationary RICE 4SLB > 500 hp located at an area source of HAP. Therefore, the requirement in Condition 18 to conduct subsequent performance tests every 8,760 hours or 36 months no longer applies based on the current regulation. Instead, the Table 6 item #14 requirement applies; this requirement is to conduct annual compliance demonstrations as required by §63.6640(c) to show that the

average CO concentration is reduced by 93% or more, or less than or equal to 47 ppmvd at 15% O₂.

Condition 19 *"On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. During startup periods the catalyst temperature and catalyst pressure drop limits of Subpart ZZZZ do not apply. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes changing Condition 19 to delete the statement that "during startup periods the catalyst temperature and catalyst pressure drop limits of Subpart ZZZZ do not apply." The catalyst temperature and pressure drop limits of Subpart ZZZZ are not longer applicable to the permit units based on the final 2013 regulation.

Condition 20 *"On and after October 19, 2013, the pre-catalyst exhaust temperature range shall remain between 450 – 1350 degrees F based on a 4-hour rolling average. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes changing Condition 20 to require the equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350°F. Instead of maintaining the pre-catalyst exhaust temperature range to remain between 450°F and 1350°F based on a 4-hour rolling average, the facility will install a temperature shutdown device to immediately shutdown the engine if the catalyst inlet temperature exceeds 1350 °F, as allowed by Subpart ZZZZ Table 5 Requirement #13 ii.

Condition 21 *"Following the initial performance test, catalyst pressure drop shall not change by more than 2 inches of water at maximum achievable output plus or minus 10% from the pressure drop that was measured during the initial performance test. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes removal of Condition 21. This requirement in Condition 21 originally appeared in 40 CFR 63 Subpart ZZZZ Table 2b (2010), however Table 2b no longer lists operating limitations for stationary RICE 4SLB > 500 hp located at an area source of hazardous air pollutants (HAP). Therefore, the operating limitation to maintain pressure drop across the catalyst that was measured during the initial performance test does not apply to the permit units based on the final 2013 regulation.

Condition 22 *"Following the initial performance test, catalyst pressure drop shall be measured and recorded monthly to demonstrate compliance with the pressure drop change limit. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes removal of Condition 22. Since the requirement in Condition 22 pertains to the operating limitation in Condition 21, it no longer applies based the explanation provided in this letter for Condition 21.

Conditions 23, 24, 25, 26, 27, 28, 29, 32, and 33

Conditions 23, 24, 25, 26, 27, 28, 29, 32 and 33 are based on the requirement to install a Continuous Parameter Monitoring System (CPMS) that originally appeared in 40 CFR 63 Subpart ZZZZ Table 5 Requirements #1 and #2 of the 2010 regulation. However, the Table 5 requirement applicable to Chowchilla in the current regulation is #13ii, which requires installation of a CPMS, *or* installation of equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350°F. Therefore, CPH intends to install a temperature shutdown device on each engine instead of a CPMS, and is requesting the following condition changes:

Condition 23 *"On and after October 19, 2013, a Continuous Parameter Monitoring System (CPMS) shall be used to verify compliance with the temperature limits. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes changing Condition 23 to require automatic shut down of the engine if the catalyst inlet temperature exceeds 1350°F.

Condition 24 *"The permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements identified in (i) through (v) as follows, or a site-specific District approved plan. (i) the performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; (ii) sampling interface (temperature sensor) location such that the monitoring system will provide representative measurements; (iii) equipment performance evaluations, system accuracy audits, or other audit procedures; (iv) ongoing operation and maintenance procedures in accordance with provisions in 68.3(c)(1) and (c)(3); and (v) ongoing reporting and recordkeeping procedures in accordance with provisions in 63.10(c), (e)(1), and (e)(2)(i). [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes removal of Condition 24. Since the facility is not required to install a CPMS based upon the final 2013 regulation, the requirement for a site-specific monitoring plan stated in §63.6625(b)(1) does not apply to the permit units.

Condition 25 *"By October 19, 2013 and thereafter, the CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the site-specific monitoring plan. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes removal of Condition 24. Since the facility is not required to install a CPMS based on the final 2013 regulation, the requirement for a site-specific monitoring plan stated in §63.6625(b)(1) does not apply.

Condition 26 *"The CPMS must measure the pre-catalyst exhaust temperature at least once every 15 minutes. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes removal of Condition 26. Condition 26 is based on §63.6625(b)(3), which requires that CPMS data be collected every 15 minutes. Since installation of a CPMS is no longer required based on the final 2013 regulation, this section does not apply.

Condition 27 *"The CPMS temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes removal of Condition 27. Condition 27 is based on §63.6625(b)(4), which requires that CPMS data be collected every 15 minutes. Since installation of a CPMS is no longer required based on the final 2013 regulation, this section does not apply.

Condition 28 *"The permittee must conduct a CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes removal of Condition 28. Condition 28 is based on §63.6625(b)(1)(iii), which requires the site-specific monitoring plan to specify equipment performance evaluations, system accuracy audits, or other audit procedures. Since the requirement is based on installation of a

CPMS, the site-specific monitoring plan is not required and this section does not apply to the permit units based on the final 2013 regulation.

Condition 29 *"The permittee shall keep records of requests for alternatives to the relative accuracy test for the CPMS as required in Section 63.8(f)(6)(i), if applicable. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes removal of Condition 29. This condition is based on section 63.8(f)(6)(i) which provides criteria for alternatives to the relative accuracy test for CEMS, which do not apply to the permit units based on the final 2013 regulation.

Condition 32 *"On and after October 13, 2013, the permittee shall maintain monthly records of each period during which a CPMS is malfunctioning or inoperative (including out-of-control-periods); all results of performance tests, CPMS performance evaluations, and opacity and visual emission observations; all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; all CPMS calibration checks; and all adjustments and maintenance performed on CPMS. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes removal of Condition 32. The requirement to maintain the records stated in Condition 32 is based on §63.10 (b)(2)(vi) through (xi), and according to §63.6655(b) is required for CEMS and CPMS, which based on the final 2013 regulation do not apply to the permit units.

Condition 33 *"The permittee shall keep previous (i.e. superseded) versions of the CPMS performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CPMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes removal of Condition 33. This condition is based on §63.6655(b), which applies to CEMS and CPMS, therefore no longer applies to the permit units based on the final 2013 regulation.

Condition 30 *"On and after October 13, 2013, the CO after-treatment control device shall be maintained per manufacturer recommendations. [40 CFR 63 ZZZZ]"*

CPH Comment

CPH proposes changing Condition 30 to reflect the requirement to maintain the existing oxidation catalyst per manufacturer recommendations. The term "after-treatment control device" should be changed to "oxidation catalyst" to match the language in the Table 6 requirement that pertains to the permit unit.

Condition 34 *"The operator shall report each instance in which each applicable emission limitation or operating limitation of 40 CFR 63, ZZZZ was not met and each incidence in which the applicable requirements in Table 8 to this subpart were not met. [40 CFR 63, ZZZZ]"*

CPH Comment

CPH proposes changing Condition 34 to clarify under what situations reporting would be required per the condition. Specifically, Condition 34 should state the applicable emission and operating limitations for which reporting would be required if the limit(s) were not met, and specific Table 8 requirements for which reporting would be required if not met. Based in the final 2013 regulation, the requirements that pertain to Subpart ZZZZ are the emission limit of 47 ppmvd at 15% O₂, the operating limit requiring automatic engine shutdown if the catalyst temperature exceeds 1350 °F, and the Table 8 requirement for initial notification.

Enclosed with this application for Title V modification is a check for the filing fee of \$304. If you have any questions regarding the application, please call me directly at (619) 972-3443.

Best regards,

BLUESCAPE ENVIRONMENTAL

a California Corporation



Tracy V. Haynes, PE
Project Manager