



AUG 29 2012

John Walsh
California Power Holdings, LLC
701 E. Lake Street. STE 300
Wayzata, MN 55391-1894

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit
District Facility # C-3775
Project # C-1110690**

Dear Mr. Walsh:

Enclosed for your review and comment is the District's analysis of California Pwer Holding's application for the Federally Mandated Operating Permit for its peaking power generating facility in Chowchilla, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

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

Sincerely,

David Warner
Director of Permit Services

cc: Dennis Roberts, Permit Services Engineer

Attachments

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



AUG 29 2012

Gerardo C. Rios, Chief
Permits Office (AIR-3)
U.S. EPA - Region IX
75 Hawthorne St
San Francisco, CA 94105

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit
District Facility # C-3775
Project # C-1110690**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of California Pwer Holding's application for the Federally Mandated Operating Permit for its peaking power generating facility in Chowchilla, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 45-day comment period which begins on the date of publication of the public notice.

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

Sincerely,



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AUG 29 2012

Mike Tollstrup, Chief
Project Assessment Branch
Air Resources Board
P O Box 2815
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit
District Facility # C-3775
Project # C-1110690**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of California Pwer Holding's application for the Federally Mandated Operating Permit for its peaking power generating facility in Chowchilla, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

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

Sincerely,



David Warner
Director of Permit Services

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Madera Tribune

**NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED ISSUANCE OF
FEDERALLY MANDATED OPERATING PERMITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed issuance of the Federally Mandated Operating permits to California Power Holdings, LLC for its peaking power generating facility in Chowchilla, California.

The District's analysis of the legal and factual basis for this proposed action, project #C-1110690, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. There are no emission changes associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the proposed Federally Mandated Operating initial permits. If requested by the public, the District will hold a public hearing regarding issuance of this initial permit. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed initial permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CALIFORNIA 93726-0244.

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

California Power Holdings, LLC

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TITLE V APPLICATION REVIEW

Project #: C-1110690
Deemed Complete: April 13, 2011

Engineer: Dennis Roberts
Date: June 5, 2012

Facility Number: C-3775
Facility Name: California Power Holdings, LLC
Mailing Address: 701 E. Lake Street, STE 300
Wayzata, MN 55391-1894

Contact Name: John Walsh
Phone: (707) 794-9704

Responsible Official: John Walsh
Title: Asset Manager

I. PROPOSAL

California Power Holdings, LLC is proposing that an initial Title V permit be issued for its existing peaking power generating facility in Chowchilla, CA. The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with those applicable requirements, and to provide the legal and factual basis for proposed permit conditions.

II. FACILITY LOCATION

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

III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is shown in Attachment A.

A summary of the exempt equipment categories which describe the insignificant activities or equipment at the facility not requiring a permit is shown in Attachment B. This equipment is not exempt from facility-wide requirements.

IV. GENERAL PERMIT TEMPLATE USAGE

The applicant is requesting to use the following model general permit templates:

A. SJV-UM-0-3, Facility-wide Umbrella General Permit Template

The applicant has requested to utilize template #SJV-UM-03, Facility-wide Umbrella General Permit Template for permit C-3775-0-0. Based on the information submitted on the Template Qualification Form, the applicant qualifies for the use of this template.

V. SCOPE OF EPA AND PUBLIC REVIEW

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

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

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

- Conditions 1 through 40 of the requirements for permit unit C-3775-0-0

VI. APPLICABLE REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES

District Rule 1100, Equipment Breakdown (amended December 17, 1992) (Non-SIP replacement for Kern County Rule 111)

District Rule 1160, Emission Statements (adopted November 18, 1992)

District Rule 2010, Permits Required (amended December 17, 1992)

District Rule 2020, Exemptions (amended August 18, 2011)¹

District Rule 2031, Transfer of Permits (amended December 17, 1992)

¹ The amendments made to this rule on August 18, 2011 have no impact to this source; therefore template SJV-UM-0-3 is still valid for this project.

- District Rule 2040, Applications (amended December 17, 1992)
- District Rule 2070, Standards for Granting Applications (amended December 17, 1992)
- District Rule 2080, Conditional Approval (amended December 17, 1992)
- District Rule 2520, Sections 5.2, 9.1.1, 9.4, 9.5, 9.7, 9.8, 9.9, 9.13.1, 9.13.2, 9.16 and 10.0, Federally Mandated Operating Permits (amended June 21, 2001)
- District Rule 4101, Visible Emissions (amended February 17, 2005)
- District Rule 4601, Architectural Coatings (amended December 17, 2009)
- District Rule 8011, General Requirements (amended August 19, 2004)
- District Rule 8021, Construction, Demolition, Excavation and Other Earthmoving Activities (amended August 19, 2004)
- District Rule 8031, Bulk Materials (amended August 19, 2004)
- District Rule 8041, Carryout and Trackout (amended August 19, 2004)
- District Rule 8051, Open Areas (amended August 19, 2004)
- District Rule 8061, Paved and Unpaved Roads (amended August 19, 2004)
- District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas (amended September 16, 2004)
- 40 CFR Part 82, Subpart B and F, Stratospheric Ozone
- 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos

VII. APPLICABLE REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES

- District Rule 2201, New and Modified Stationary Source Review Rule (amended April 21, 2011)
- District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)
- District Rule 4702, Internal Combustion Engines–Phase 2 (amended April 20, 2006 ⇒ amended January 18, 2007)
- 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (amended January 18, 2008)
- 40 CFR Part 64 – Compliance Assurance Monitoring (CAM)

VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

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

This facility is subject to the following rules that are not currently federally enforceable:

District Rule 4102, Nuisance (amended December 17, 1992)

For this facility,

C-3775-0-0:

Facility-Wide Requirements

- Condition 41 of the facility-wide requirements is based on the rule listed above and is not Federally Enforceable through Title V.

C-3775-1-6 through '16-6:

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

- Condition 5 and 50 of the requirements for these permit units are completely based on the rule listed above and are not Federally Enforceable through Title V.
- Condition 9 and 51 of the requirements for these permit units are partially based on the rule listed above. However, they are Federally Enforceable through Title V since they reference other federal enforceable requirements which will be discussed under the applicable sections of this document..

IX. COMPLIANCE

A. Requirements Addressed by Model General Permit Templates

1. Facility Wide Requirements

The applicant is proposing to use a general permit template to address federally applicable facility-wide requirements. Section IV of template SJV-UM-0-3 includes a demonstration of compliance for all applicable requirements.

Template conditions have been added to the facility wide requirements as condition numbers 1 through 40 to assure compliance with these requirements.

B. Requirements Not Addressed by Model General Permit Templates

1. New and Modified Stationary Source Review Rule (District Rule 2201)

The permit units are subject to the District NSR Rule upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting Permit to Operate (PTO) were addressed to define how NSR permit terms should be incorporated into the Title V permit.

C-3775-1-6 through '16-6:

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

- Conditions 1, 5, 6, 8-16 and 31 from the current PTOs have been included as conditions 1, 3, 4, 6-14 and 55 of the requirements for the proposed permits.

2. District Rule 2520, Federally Mandated Operating Permits

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

3. District Rule 4201, Particulate Matter Concentration

Section 3.1 of this rule requires emissions to be at or below 0.1 grains of particulate matter per dry standard cubic foot of exhaust gas.

Particulate matter emissions from each engine will be less than or equal to the rule limit of 0.1 grain per cubic foot of gas at dry standard conditions as shown by the following:

$$0.029 \frac{g - PM_{10}}{bhp - hr} \times \frac{1g - PM_{10}}{0.96g - PM_{10}} \times \frac{1bhp - hr}{2,542.5 Btu} \times \frac{10^6 Btu}{8,578 dscf} \times \frac{0.35 Btu_{out}}{1 Btu_{in}} \times \frac{15.43 grain}{g} = 0.007 \frac{grain - PM}{dscf}$$

Since 0.0007 grain-PM/dscf is ≤ to 0.1 grain per dscf, compliance with Rule 4201 is expected.

C-3775-1-6 through '16-6:

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

- Condition 2 of the requirements for these permit units assures compliance with this rule.

Rule 4702 Internal Combustion Engines – Phase 2

This rule limits the emissions of nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC) from spark-ignited internal combustion engines.

The rule applies to any spark-ignited internal combustion engine with a rated brake horsepower greater than 50 horsepower and that requires a Permit-to-Operate (PTO).

Section 5.1 limits emissions per the following table:

Rule 4702 Emission Limits			
Engine Type	NO_x Emission Limit (ppmv @ 15% O₂, dry)	CO Emission Limit (ppmv @ 15% O₂, dry)	VOC Emission Limit (ppmv @ 15% O₂, dry)
1. Rich Burn			
a. Waste gas fueled	50 ppmv or 90% reduction	2,000 ppmv	250 ppmv
b. Cyclic loaded, field gas fueled	50 ppmv	2,000 ppmv	250 ppmv
c. All other engine	25 ppmv or 96% reduction	2,000 ppmv	250 ppmv
2. Lean Burn			
a. 2-Stroke, gaseous fueled, < 100 hp	75 ppmv or 85% reduction	2,000 ppmv	750 ppmv
b. All other engines	65 ppmv or 90% reduction	2,000 ppmv	750 ppmv

All permit units at this facility are 4 stroke lean-burn IC engines. Therefore, each engine is subject to emissions limits of 65 ppmvd NO_x, 2,000 ppmvd CO, and 750 ppmvd VOC (all measured @ 15% O₂).

Section 5.2 requires that all continuous emission monitoring systems (CEMS) emissions measurements shall be averaged over a period of 15 consecutive minutes. The IC engines involved with this project do not have CEMS installed; therefore this section of the Rule is not applicable.

Section 5.6 specifies the following monitoring requirements: :

For each engine with a rated brake horsepower of 1,000 hp or greater and which is permitted to operate more than 2,000 hours per calendar year, or with an external emission control device, shall either install, operate, and maintain continuous monitoring equipment for NO_x, CO, and oxygen, as identified in District Rule 1080 (Stack Monitoring), or install, operate, and maintain APCO-approved alternate monitoring. The monitoring system may be a continuous emissions monitoring system (CEMS), a parametric emissions monitoring system (PEMS), or an alternative monitoring system approved by the APCO. APCO-approved alternate monitoring shall consist of one or more of the following:

- Periodic NO_x and CO emission concentrations,
- Engine exhaust oxygen concentration,
- Air-to-fuel ratio,
- Flow rate of reducing agents added to engine exhaust,
- Catalyst inlet and exhaust temperature,
- Catalyst inlet and exhaust oxygen concentration,
- Other operational characteristics.

The applicant has chosen to meet this section of the Rule by proposing a pre-approved alternate emissions monitoring plan that specifies that the permittee perform periodic NO_x, CO, and O₂ emissions concentrations as specified in District Policy SSP-1810, dated 4/29/04.

Section 5.6.6 requires that each engine install and operate a nonresettable elapsed operating time meter. The owner or operator shall maintain these required meters in proper operating condition.

Section 5.6.7 requires that for each engine, the permittee shall implement the Inspection and Monitoring (I&M) plan submitted to and approved by the APCO pursuant to Section 6.5. The applicant has submitted an I&M program and the implementation of this plan will be explained in detail in the section that covers Section 6.5 of this Rule.

Section 5.6.8 requires collection of data through the I&M plan for each engine in a form approved by the APCO. The applicant has submitted an I&M program and the implementation of this plan will be explained in detail in the section that covers Section 6.5 of this Rule.

Section 5.6.9 requires the use of a portable NO_x analyzer for each engine to take NO_x emission readings in order to verify compliance with the emission requirements of Section 5.1 or Section 8.2 during each calendar quarter in which a source test is not performed. All emission readings shall be taken with the engine 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. All NO_x emissions readings shall be reported to the APCO in a manner approved by the APCO. NO_x emission readings taken pursuant to this section 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.

Section 6.2 requires maintenance of an engine an engine operating log for each engine to demonstrate compliance with this rule. This information shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request. The engine operating log shall include, on a monthly basis, the following information:

- Total hours of operation,
- Type and quantity (cubic feet of gas or gallons of liquid) of fuel used,
- Maintenance or modifications performed,
- Monitoring data,
- Compliance source test results, and
- Any other information necessary to demonstrate compliance with this rule.

Section 6.2.2 requires that the data collected pursuant to the requirements of Section 5.6 shall be maintained for at least five years, shall be readily available, and made available to the APCO upon request.

Section 6.3 requires that the owner of an engine subject to the emission limits in Section 5.1 or the requirements of Section 8.2, shall:

Demonstrate compliance with applicable limits by the applicable date specified in Section 7.6 and at least once every 24 months thereafter, in accordance with the test methods in Section 6.4. As discussed in the source testing compliance section of this evaluation, per District Policy APR 1705, the engines must be tested at least one every 12 months.

Conduct emissions source testing with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. For emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply. If two (2) of three (3) runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC shall be reported as methane. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15 percent oxygen. For engines that comply with a percent reduction limit in Table 1, the percent reduction of NO_x emissions shall also be reported.

In addition to other information, the source test protocol shall describe which critical parameters will be measured and how the appropriate range for these parameters shall be established. The range for these parameters shall be incorporated into the I&M plan.

Section 6.4 requires that the compliance with the requirements of Section 5.0 shall be determined in accordance with the following test procedures or any other method approved by EPA and the APCO:

- Oxides of nitrogen - EPA Method 7E, or ARB Method 100.
- Carbon monoxide - EPA Method 10, or ARB Method 100.
- Stack gas oxygen - EPA Method 3 or 3A, or ARB Method 100.
- Volatile organic compounds - EPA Method 25A or 25B, or ARB Method 100.
- Operating horsepower determination - any method approved by EPA and the APCO.

Section 6.5 requires that the owner of an engine subject to the emission limits in Section 5.1 or the requirements of Section 8.2, shall submit to the APCO for approval, an I&M plan that specifies all actions to be taken to satisfy the following requirements and the requirements of Section 5.6. The actions to be identified in the I&M plan shall include, but are not limited to, the following:

Section 6.5.2 specifies procedures requiring the owner or operator to establish ranges for control equipment parameters, engine operating parameters, and engine exhaust oxygen concentrations that source testing has shown result in pollutant concentrations within the rule limits.

Section 6.5.3 specifies procedures for monthly inspections as approved by the APCO. The applicable control equipment parameters and engine operating parameters will be inspected and monitored monthly in conformance with a regular inspection schedule listed in the I&M plan.

Section 6.5.4 specifies procedures for the corrective actions on the noncompliant parameter(s) that the owner or operator will take when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust NO_x, CO, VOC, or oxygen concentrations.

Section 6.5.5 specifies procedures for the owner or operator to notify the APCO when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust NO_x, CO, VOC, or oxygen concentrations.

Section 6.5.6 specifies procedures for preventive and corrective maintenance performed for the purpose of maintaining an engine in proper operating condition.

Section 6.5.7 specifies procedures and a schedule for using a portable NO_x analyzer to take NO_x emission readings pursuant to Section 5.6.9.

Section 6.5.8 specifies procedures for collecting and recording required data and other information in a form approved by the APCO including, but not limited to, data collected through the I&M plan and the monitoring systems described in Sections 5.6.1 and 5.6.2. Data collected through the I&M plan shall have retrieval capabilities as approved by the APCO.

Section 6.5.9 specifies procedures for revising the I&M plan. The I&M plan shall be updated to reflect any change in operation. The I&M plan shall be updated prior to any planned change in operation. An engine owner that changes significant I&M plan elements must notify the District no later than seven days after the change and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine operating log. For new engines and modifications to existing engines, the I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit-to-Operate. The owner of an engine may request a change to the I&M plan at any time.

C-3775-1-6 through '16-6:

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

- Conditions 15, 35, 37, 40, 47, 51-54, 56 and 57 of the requirements for these permit units assure compliance with this rule.

40 CFR 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Emissions (RICE)

This subpart is applicable to any stationary spark-ignited reciprocating internal combustion engine at a major or area source of HAP (Hazardous Air Pollutant) emissions, except for a stationary engine being tested at a stationary engine test cell/stand. A major source of HAP emissions is a facility that has the potential to emit any single HAP at a rate of 10 tons/year or greater or any combinations of HAPs at a rate of 25 tons/year or greater. An area source of HAP emissions is a facility which is not a major source of HAP emissions.

Each engine at this facility is a stationary RICE located at an area source of HAP emissions. Therefore, these engines are subject to the requirements of this subpart. In addition, all engines at this facility are spark-ignited 4SLB stationary RICE > 500 hp, equipped with CO oxidation catalyst and are operated more than 24 hours per calendar year and are not limited use stationary RICE.

Section §63.6590(a)(1) states that a stationary RICE is existing if the engine was first installed before June 12, 2006. In addition, this section indicates a change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

The engines at this facility were initially permitted and started up in 2001. Therefore they are existing stationary RICE.

40 CFR 63 Subpart ZZZZ section §63.6595(a)(1) indicates the existing stationary SI RICE located at an area source of HAP emissions must comply with the applicable limitations and operating limitations no later than *October 19, 2013*.

§63.6603(a), states the owner or operator of an existing 4SLB stationary RICE located at an area source of HAP emissions must comply with the requirements listed in Table 2(d)(8), and the operating limitations specified in Table 2 (b)(1) of this subpart. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures listed in §63.6620 and Table 4(1) of this subpart.

Table 2(d)(8) lists the following requirements for non-emergency, non-black start 4SLB stationary RICE > 500 hp engine during the normal operation:

- a. Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd at 15% O₂; ,or
- b. Reduce CO emissions by 93% or more

This facility has elected to comply with the CO concentration limit of (a) above for all engines.

Table 2(b)(1) lists the operating limitations for an existing spark ignition 4SLB stationary RICE > 500 hp that is equipped with CO oxidation catalyst and is located at an area source of HAP emissions as following:

- Maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100% load plus or minus 10% from the pressure drop across the catalyst measured during the initial performance test; and
- Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1,350 °F.

§63.6605(a) and (b) lists the operator's general requirements for complying with this subpart:

1. Be in compliance with the applicable emission limitations and operating limitations of this subpart at all times
2. Operate and maintain the equipment, including air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

§63.6612 (a) and (b) states that a compliance demonstration must be made within 180 after the compliance date for this subpart. However, the operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted if the test must meets all of the conditions described below:

1. The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
2. The test must not be older than 2 years.
3. The test must be reviewed and accepted by the Administrator.
4. Either no process or equipment changes must have been made since the test was performed, or the owner of operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

§63.6615 states the operator must conduct subsequent performance tests as specified in Table 3(4). Per Table 3(4) the operator must conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first.

§63.6620(a) and (b) requires the operator to conduct each performance test as specified in Table 4(1) for a 4SLB stationary RICE to demonstrate compliance with CO emission limits. Table 4(1) of this subpart lists the performance testing requirements as following:

To comply with the requirements to limit the concentration of CO in the exhaust, the operator must:

- (i) Measure the O₂ at the outlet of the control device using Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005). Measurements to determine O₂ must be made at the same time as the measurements for CO concentration.
- (ii) Measure the moisture content at the outlet of the control device using 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. Measurements to determine moisture content must be made at the same time and location as the measurements for CO concentration.
- (iii) Measure the CO at the outlet of the control device using Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00 (2005), Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03. The CO concentration must be at 15 percent O₂, dry basis.

§63.6620(d), (e) and (i) specifies that each performance test must consist of three separate one-hour test runs per §63.7(e)(3) and must also specify the required calculation procedures for each test.

§63.6625(b) specifies the requirements for installation, operation and maintenance of the continuous parameter monitoring system (CPMS) as required by Table 5(1):

- (1) The operator must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), the operator may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in the proposed site-specific monitoring 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 (e.g., thermocouple) 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 §63.10(c) and (c)(3); and
 - (v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).
- (2) The operator must install, operate, and maintain each CPMS in continuous operation according to the procedures in the proposed site-specific monitoring plan.
- (3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).
- (4) For a CPMS for measuring temperature range, the 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.
- (5) The operator must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the proposed site-specific monitoring plan at least annually.
- (6) The operator must conduct a performance evaluation of each CPMS in accordance with the proposed site-specific monitoring plan.

This facility has elected to monitor the oxidation catalyst inlet temperature as the basis for the CPMS for each engine at the facility, in accordance with 63.6625(b)(1) through (5) above.

§63.6625(h) specifies that each engine's time spent at idle must be minimized during startup and that the startup time shall be minimized to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2d to this subpart apply.

§63.6630(a) states that the operator must demonstrate initial compliance with each emission and operating limitation as specified in Table 5(2) of this subpart.

Per Table 5(2), the operator has demonstrated initial compliance with the requirements if:

- (i) The average concentration of CO as determined from the initial performance test is equal to or less than the CO emission limitation; and
- (ii) The operator has installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
- (iii) The operator has recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

§63.6630(b) states that during the initial performance test the operator must meet each operating limitation as specified in Table 2(b)(1) of this subpart:

- Maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100% load plus or minus 10% from the pressure drop across the catalyst measured during the initial performance test; and
- Maintain the temperature of the stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1,350 °F.

§63.6630(c) states that the operator must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645 of this subpart.

§63.6640(a) states that the operator must demonstrate continuous compliance with each emission and operating limitations according to methods specified in Table 6(10) as follows:

- (i) Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO to demonstrate that their emissions remain at or below the CO concentration limit; and
- (ii) Collecting the catalyst inlet temperature data according to §63.6625(b); and
- (iii) Reducing these data to 4-hour rolling averages; and
- (iv) Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
- (v) Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.

§63.6640(b) states that the operator must report each instance in which each emission limitation or operating limitation as specified in Tables 2(b)(1) and 2(d)(8) was not met. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If the operator changes the catalyst, the operator must reestablish the values of the operating parameters measured during the initial performance test. When the operator reestablishes the values of the new operating parameters, the operator must also conduct a performance test to demonstrate that the proposed engine is meeting the required emission limitation.

§63.6640(e) states that the operator must also report each instance in which the operator did not meet the applicable requirements in Table 8 to this subpart.

§63.6645(a)(2) states that the operator must submit all of the applicable notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) by the dates specified.

§63.6645(h)(2) states that the operator must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

§63.6650(a) states that the required compliance report must be submitted semiannually, according to the requirements in §63.6650(b)(1) through (4), as specified in Table 7(1) of this subpart. The compliance report must contain the following:

- a. If there are no deviations from any emission limitations or operating limitations that apply to the operator, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or
- b. If the operator had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or
- c. If the operator had a malfunction during the reporting period, the information in §63.6650(c)(4).

§63.6650(b) states that each report must be submitted semiannually according to the requirements belows:

- (1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.
- (2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.
- (3) For semiannual Compliance reports, 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 31.
- (4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

§63.6650(c) states that the compliance report must contain the following information:

- (1) Company name and address.
- (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
- (3) Date of report and beginning and ending dates of the reporting period.
- (4) If the operator had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.
- (5) If there are no deviations from any emission or operating limitations that apply to the operator, a statement that there were no deviations from the emission or operating limitations during the reporting period.
- (6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

§63.6650(e) states that for each deviation from an emission or operating limitation occurring for a stationary RICE where the operator is using a CMS to comply with the emission an operating limitations in this subpart, the operator must include information in paragraphs (c)(1) through (4) of this subpart and the following:

- (1) The date and time that each malfunction started and stopped.
- (2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
- (3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).
- (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
- (5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
- (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
- (7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
- (8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
- (9) A brief description of the stationary RICE.
- (10) A brief description of the CMS.

- (11) The date of the latest CMS certification or audit.
- (12) A description of any changes in CMS, processes, or controls since the last reporting period.

§63.6655(a) states that the operator must keep the records described belows:

- (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).
- (2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.
- (3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).
- (4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
- (5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- (6) For each CPMS, you must keep the following records:
 - a. Records described in §63.10(b)(2)(vi) through (xi).
 - b. Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).
 - c. Requests for alternatives to the relative accuracy test for CPMS as required in §63.8(f)(6)(i).

§63.6655(d) states that the operator must keep the records required in Table 6(10) to show continuous compliance with each emission or operating limitation.

§63.6655(e)(3) states the operator must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the operator operated and maintained the stationary RICE and after-treatment control device according to the proposed maintenance plan.

§63.6660 states the operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

C-3775-1-6 through '16-6:

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

- Conditions 7, 16-34, and 39, 40, and 56 of the requirements for these permit units assure compliance with this regulation.

40 CFR Part 64, CAM

§64.2 – Applicability

This section requires Compliance Assurance Monitoring (CAM) for units that meet the following three criteria:

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

§64.3 - Monitoring Design Criteria

This section specifies the design criteria for the CAM system. Paragraph (a) (*General criteria*) requires that the CAM system be designed to obtain data for one or more appropriate indicators of emission control system performance and requires the owner to establish appropriate ranges or designated conditions for the selected indicators such that operation within the ranges provides a reasonable assurance of ongoing compliance with emission limitations or standards for the anticipated range of operating conditions.

Paragraph (b) (*Performance criteria*) requires the owner or operator to establish and maintain the following:

- Specifications to ensure that representative data are collected
- Verification procedures for startup of new monitoring equipment
- Quality assurance and control practices to ensure continuing validity of data
- Data collection frequency and procedures

Paragraph (c) (*Evaluation factors*) requires the owner or operator to take into account site specific factors in the design of the CAM system.

Paragraph (d) (*Special criteria for the use of continuous emission, opacity, or predictive monitoring systems*) requires the owner or operator to use a continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS), or a predictive emission monitoring system (PEMS) to satisfy CAM requirements, provided that these monitoring systems are required pursuant to other authority under the Clean Air Act or state or local law. This subsection also stipulates the following:

- The use of a CEMS, COMS, or PEMS that satisfies any of the following monitoring requirements shall be deemed to satisfy the general design criteria in paragraphs (a) and (b) of this section, provided that a COMS may be subject to the criteria for establishing indicator ranges under paragraph (a) of this section:
 - (i) Section 51.214 and appendix P of 40 CFR 51;
 - (ii) Section 60.13 and appendix B of 40 CFR 60;
 - (iii) Section 63.8 and any applicable performance specifications required pursuant to the applicable subpart of 40 CFR 63; (iv) 40 CFR 75;
 - (v) Subpart H and appendix IX of 40 CFR 266; or
 - (vi) In the event that the monitoring system is not subject to any of the requirements listed above, comparable requirements and specifications established by the permitting authority.

- The owner or operator shall design the monitoring system subject to this paragraph (d) to:
 - (i) Allow for reporting of exceedances (or excursions if applicable to a COMS used to assure compliance with a particulate matter standard), consistent with any period for reporting of exceedances in an underlying requirement. If an underlying requirement does not contain a provision for establishing an averaging period for the reporting of exceedances or excursions, the criteria used to develop an averaging period specified in the data collection procedures required under paragraph (b) of this section shall apply; and
 - (ii) Provide an indicator range consistent with paragraph (a) of this section for a COMS used to assure compliance with a particulate matter standard. If an opacity standard applies to the pollutant-specific emissions unit, such limit may be used as the appropriate indicator range unless the opacity limit fails to meet the criteria in paragraph (a) of this section after considering the type of control device and other site-specific factors applicable to the pollutant-specific emissions unit.

§64.4 - Submittal Requirements

This section specifies submittal requirements for the owner or operator which ensure the CAM system will comply with the design criteria of §64.3.

§64.5 - Deadlines for Submittals

This section specifies required timing for submittals required under §64.4.

Large pollutant-specific emissions units (those with controlled emissions exceeding major source thresholds) are required to make the submittals as a part of the initial Title V permit application where the application has either not been filed or has not been deemed

complete. Where the initial Title V permit has been issued without implementation of 40 CFR 64, the owner or operator must make the required submittals as a part of a subsequent application for any significant permit revision. If the required information is not submitted by either of these deadlines, it must be submitted as a part of the application for the Title V permit renewal.

For *other pollutant-specific emissions units*, the required submittal deadline is the application for Title V permit renewal.

§64.6 - Approval of monitoring

This section stipulates the following:

- A requirement that the permitting authority act to approve the proposed monitoring by confirming that the monitoring submitted complies with the requirements of §64.3
- An allowance for the permitting authority to condition the approval based on collecting additional data on the indicators to be monitored, including performance or compliance testing
- The minimum conditions that must be placed on the permit in the event that the proposed monitoring is approved by the permitting authority including a milestone schedule for completion of any conditional approval actions required by the owner or operator, such as installations, testing, or verification of operational status
- Actions required by the permitting authority in the event that the proposed monitoring is not approved

The CAM submittal requirements and stipulations for approval of such submittals pursuant to §64.4, §64.5, and §64.6 have been completed in conjunction with the application and review process for this renewal of the Title V permit.

§64.7 - Operation of Approved Monitoring

This section stipulates the following:

- Requirements that the owner or operator 1) commence the monitoring upon receipt of a Title V permit that includes such monitoring, 2) properly maintain the monitoring system, and 3) conduct all monitoring in a continuous mode with the exception of outage periods associated with monitor malfunction and repair and with quality assurance and control activities
- Actions required by the owner or operator in response to excursions or exceedances
- A requirement for the owner or operator to document any need for improved monitoring based upon either an identification of a failure of the monitoring system to identify an excursion or exceedance or upon the results of compliance or performance testing that identifies a need to modify the monitoring

§64.8 - Quality Improvement Plan (QIP) Requirements

This section stipulates that the Administrator or the permitting authority may require that the facility develop and implement a QIP in the event of a determination of a need for improved monitoring pursuant to §64.7. §64.8 also identifies the minimum elements required in the QIP, and requires that the facility implement the QIP as expeditiously as possible, with implementation not exceeding 180 days after the date that the need for implementation was identified unless the permitting authority is notified.

§64.9 - Reporting and Recordkeeping Requirements

This section stipulates the minimum reporting and recordkeeping requirements for facilities subject to 40 CFR 64.

§64.10 - Savings Provisions

This section states that the purpose of 40 CFR 64 is to require, as a part of the issuance of a Title V permit, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of 40 CFR 64. In addition, §64.10 states that nothing in 40 CFR 64 shall excuse an owner or operator from any other requirements of federal, state or local law or restrict or abrogate the authority of the Administrator or of the permitting authority.

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

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

C-3775-1-6 through '16-6:

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

These permit units have emission limits for NO_x, VOC, PM₁₀, SO_x, and CO. They are each equipped with add-on controls for NO_x, VOC and CO. The pre-control potentials to emit for NO_x, VOC and CO are determined as follows:

Uncontrolled Emission Factors are given by the maximum allowed startup emission rate as listed on the permits: (Basis AP-42, Table 3.2-2)

NOx: 6.8 lb/hr
VOC: 2.05 lb/hr
CO: 2.56 lb/hr

Annual pre-control potential to emit is calculated based on 8,760 hours per year:

NOx:
 $6.8 \text{ lb/hour} \times 8760 \text{ hr/yr} = 59,568 \text{ lb/year} > 20,000 \text{ lb/year}$ (major source threshold)

VOC:
 $2.05 \text{ lb/hour} \times 8760 \text{ hr/yr} = 17,958 \text{ lb/year} < 20,000 \text{ lb/year}$ (major source threshold)

CO:
 $2.56 \text{ lb/hour} \times 8760 \text{ hr/yr} = 22,426 \text{ lb/year} < 200,000 \text{ lb/year}$ (major source threshold)

As is indicated above, CAM is required for NOx emissions only.

Post-control potential to emit for NOx is limited by permit to the following:

NOx: 8,811 lb/year (less than major source threshold)

Therefore a minimum monitoring frequency of 24 hours is required.

For compliance with the daily NOx monitoring requirement for CAM, the facility has proposed daily monitoring of the operation of the urea-based SCR system and of the engine operation. In addition, the facility will perform quarterly monitoring and recording of the exhaust NOx concentration using a portable analyzer. The control/logic capabilities incorporated into the existing SCR control system are as follows:

- There is a temperature switch on the outlet of the SCR system. When the temperature at the outlet reaches 600 F (normal operating temperature), urea injection is automatically initiated and visual indicators are displayed (lights) which inform the operator that the urea injection is underway and that the system temperature is above 600 F.
- Pressure of the urea dosing system is monitored. Indication of excessively high pressure will cause an error light to display as a warning that the urea dosing system has stopped. The operator inspects the system to diagnose the issue and then shuts the engine down to implement repairs.

- There is an air compressor on each dosing system to atomize the urea. If air flow is too low, an error light is displayed and the urea dosing is shut off. The operator inspects the system to diagnose the issue and then shuts the engine down to implement repairs.
- On a daily basis, the operator checks the operation of the dosing system to assure that the system is operational and that no error lights are displayed.

Monitoring for CAM compliance will incorporate the following:

- Daily monitoring of exhaust gas operating temperature.
- Daily monitoring of the operation of the urea dosing system based on visual displays at control panel and visual inspection of the urea pump.
- Daily monitoring of the urea level in the sight glass of the dosing system. .
- Daily confirmation of proper engine operation through monitoring of the engine parameters on the engine control system.

CAM permit conditions:

- Conditions 42-47 of the requirements for these permit units assure compliance with this regulation.

X. PERMIT SHIELD

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

A. Requirements Addressed by Model General Permit Templates

By using the model general permit template listed in Section IV of this evaluation, the applicant has requested that a permit shield be issued for requirements addressed in the template. The basis for each permit shield is discussed in the Permit Shield section of each template.

XI. PERMIT CONDITIONS

See *{draft}* operating permit beginning on the following page.

XI. LIST OF ATTACHMENTS

- A: Detailed Facility Print Out
- B: Exempt Equipment
- C: Current SJVUAPCD Permits

Attachment A

Detailed Facility Printout

Attachment B

Exempt Equipment

Attachment C

Current SJVUAPCD Permits

San Joaquin Valley Air Pollution Control District

FACILITY: C-3775-0-0

EXPIRATION DATE: 05/31/2016

FACILITY-WIDE REQUIREMENTS

1. {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. {4365} Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: CALIFORNIA POWER HOLDINGS LLC
Location: 16457 AVENUE 24 1/2, CHOWCHILLA, CA
C-3775-0-0; Aug 6 2012 9 00AM - ROBERTSD

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

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

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-1-6

EXPIRATION DATE: 03/31/2016

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] Federally Enforceable Through Title V Permit
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. [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 100% load 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 emission 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
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 CMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superceded) 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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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

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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] Federally Enforceable Through Title V Permit
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

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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
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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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-2-6

EXPIRATION DATE: 05/31/2016

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] Federally Enforceable Through Title V Permit
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. [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 100% load 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 emission 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
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 CMS. [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] Federally Enforceable Through Title V Permit
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

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-3-6

EXPIRATION DATE: 05/31/2016

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

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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 CMS. [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
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

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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] Federally Enforceable Through Title V Permit
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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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
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: 05/31/2016

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] Federally Enforceable Through Title V Permit
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: NOx (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 SOx - 0.009 g/hp-hr. Compliance with the NOx, 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: NOx (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: NOx (as NO2) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM10 - 6.4 lb/day, or SOx - 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. 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. [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 100% load 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 emission 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
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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] Federally Enforceable Through Title V Permit
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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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
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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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-5-6

EXPIRATION DATE: 05/31/2016

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] Federally Enforceable Through Title V Permit
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. [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 100% load 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 emission 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 CPMS 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 CMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superceded) 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] Federally Enforceable Through Title V Permit
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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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
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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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-6-6

EXPIRATION DATE: 05/31/2016

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] Federally Enforceable Through Title V Permit
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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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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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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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] Federally Enforceable Through Title V Permit
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

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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
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: 05/31/2016

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

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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] Federally Enforceable Through Title V Permit
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 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] Federally Enforceable Through Title V Permit
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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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
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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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-8-6

EXPIRATION DATE: 05/31/2016

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] Federally Enforceable Through Title V Permit
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. [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 100% load 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 emission 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 CMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superceded) 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] Federally Enforceable Through Title V Permit
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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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
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.

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-9-6

EXPIRATION DATE: 05/31/2016

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] Federally Enforceable Through Title V Permit
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: NOx (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 SOx - 0.009 g/hp-hr. Compliance with the NOx, 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: NOx (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: NOx (as NO2) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM10 - 6.4 lb/day, or SOx - 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. [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 100% load 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 emission 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
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 CMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superceded) 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] Federally Enforceable Through Title V Permit
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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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
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: 05/31/2016

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] Federally Enforceable Through Title V Permit
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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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 CMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superceded) 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] Federally Enforceable Through Title V Permit
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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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
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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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-11-6

EXPIRATION DATE: 05/31/2016

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] Federally Enforceable Through Title V Permit
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: NOx (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 SOx - 0.009 g/hp-hr. Compliance with the NOx, 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: NOx (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: NOx (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SOx - 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. [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 100% load 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 emission 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 CMS. [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
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

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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] Federally Enforceable Through Title V Permit
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

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

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
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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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-12-6

EXPIRATION DATE: 05/31/2016

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] Federally Enforceable Through Title V Permit
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. [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 100% load 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 emission 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 CMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superceded) 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] Federally Enforceable Through Title V Permit
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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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
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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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-13-6

EXPIRATION DATE: 05/31/2016

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] Federally Enforceable Through Title V Permit
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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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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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
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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
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33. The permittee shall keep previous (i.e., superceded) 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
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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] Federally Enforceable Through Title V Permit
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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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
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: 05/31/2016

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] Federally Enforceable Through Title V Permit
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 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

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] Federally Enforceable Through Title V Permit
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

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

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
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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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-15-6

EXPIRATION DATE: 05/31/2016

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] Federally Enforceable Through Title V Permit
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. [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 100% load 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 emission 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 CMS. [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] Federally Enforceable Through Title V Permit
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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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
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.

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-16-6

EXPIRATION DATE: 05/31/2016

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] Federally Enforceable Through Title V Permit
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. [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 100% load 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 emission 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 CMS. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
33. The permittee shall keep previous (i.e., superceded) 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
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] Federally Enforceable Through Title V Permit
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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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
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.

DRAFT

Attachment A

Detailed Facility Printout

Detailed Facility Report
For Facility=3775 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

CALIFORNIA POWER HOLDINGS LLC 16457 AVENUE 24 1/2 CHOWCHILLA, CA	FAC # STATUS: TELEPHONE:	C 3775 A 6192326564	TYPE: TOXIC ID:	TitleV	EXPIRE ON: AREA: INSP. DATE:	05/31/2016 1 / 03/12
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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
C-3775-1-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-2-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-3-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-4-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-5-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-6-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-7-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-8-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-9-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-10-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR

Detailed Facility Report
For Facility=3775 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
C-3775-11-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-12-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-13-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-14-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-15-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR
C-3775-16-5	3,100 kW	3020-08A C	1	1,533.00	1,533.00	A	4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN ELECTRICAL GENERATOR

Number of Facilities Reported: 1

Attachment B

Exempt Equipment

**San Joaquin Valley
Unified Air Pollution Control District
Title V Application - INSIGNIFICANT ACTIVITIES**

COMPANY NAME: California Power Holdings, LLC

FACILITY ID: C-3775

Check the box next to the exemption category from Rule 2020 which describes any insignificant activity or equipment at your facility not requiring a permit.

Exemption Category	Rule 2020 Citation	√	Exemption Category	Rule 2020 Citation	√
Structure or incinerator assoc. with a structure designed as a dwelling for 4 families or less	4.1		Containers used to store refined lubricating oils	6.6.8	X
Locomotives, airplanes, and watercraft used to transport passengers or freight	4.4		Unvented pressure vessels used exclusively to store liquified gases or assoc with exempt equipment	6.6.9 or 6.13	
Natural gas or LPG-fired boilers or other indirect heat transfer units of 5 MMBtu/hr or less	6.1.1		Portable tanks used exclusively to store produced fluids for ≤ six months	6.6.10	
Piston-type i.c. engine with maximum continuous rating of 50 braking horsepower (bhp) or less	6.1.2		Mobile transport tanks on delivery vehicles of VOCs	6.6.11	
Gas turbine engines with maximum heat input rating of 3 MMBtu/hr or less	6.1.3		Loading racks used for the transfer of less than 4,000 gal/day of unheated organic material with initial boiling point ≥ 302 F or of fuel oil with specific gravity ≥ 0.8251	6.7.1.1	
Space heating equipment other than boilers	6.1.4		Loading racks used for the transfer of asphalt, crude or residual oil stored in exempt tanks, or crude oil with specific gravity ≥ 0.8762	6.7.1.2	
Cooling towers with a circulation rate less than 10,000 gal/min, and that are not used for cooling of process water, or water from barometric jets or condensers++	6.2		Equipment used exclusively for the transfer of refined lubricating oil	6.7.2	X
Use of less than 2 gal/day of graphic arts materials	6.3		Equipment used to apply architectural coatings	6.8.1	
Equipment at retail establishments used to prepare food for human consumption	6.4.1		Unheated, non-conveyorized cleaning equipment with < 10 ft ² open area; using solvents with initial boiling point ≥ 248 F; and < 25 gal/yr. evaporative losses	6.9	
Ovens at bakeries with total daily production less than 1,000 pounds and exempt by sec. 6.1.1	6.4.3		Brazing, soldering, or welding equipment	6.10	X
Equipment used exclusively for extruding or compression molding of rubber or plastics, where no plastisizer or blowing agent is used	6.5		Equipment used to compress natural gas	6.11	
Containers used to store clean produced water	6.6.1		Fugitive emissions sources assoc. with exempt equipment	6.12	
Containers ≤ 100 bbl used to store oil with specific gravity ≥ 0.8762	6.6.2		Pits and Ponds as defined in Rule 1020	6.15	
Containers ≤ 100 bbl installed prior to 6/1/89 used to store oil with specific gravity ≥ 0.8762	6.6.3		On-site roadmix manufacturing and the application of roadmix as a road base material	6.17	
Containers with a capacity ≤ 250 gallons used to store organic material where the actual storage temperature < 150 F	6.6.4		Emissions less than 2 lb/day from units not included above	6.19	X
Containers used to store unheated organic material with an initial boiling point ≥ 302 F	6.6.5		Venting PUC quality natural gas from for sole purpose of pipeline and compressor repair and or maintenance	7.2	X
Containers used to store fuel oils or non-air-blown asphalt with specific gravity ≥ 0.9042	6.6.6		Non-structural repairs & maintenance to permitted equipment	7.3	X
Containers used to store petroleum distillates used as motor fuel with specific gravity ≥ 0.8251	6.6.7		Detonation of explosives ≤ 100 lb/day and 1,000 lb/year	7.4	

No insignificant activities (Check this box if no equipment in the above categories exist at your facility.)

Attachment C

Current SJVUAPCD Permits

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-1-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. 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]
10. 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]
11. 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]
12. 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]
13. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

33. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-2-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. 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]
10. 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]
11. 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]
12. 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]
13. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

33. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-3-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NOx (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]
10. 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]
11. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NOx (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102]
12. 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]
13. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NOx (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]

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

14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

33. 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]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-4-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. 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]
10. 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]
11. 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]
12. 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]
13. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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33. 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]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-5-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. 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]
10. 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]
11. 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]
12. 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]
13. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

33. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-6-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. 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]
10. 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]
11. 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]
12. 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]
13. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

33. 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]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-7-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. 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]
10. 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]
11. 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]
12. 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]
13. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

33. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-8-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4, 157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. 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]
10. 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]
11. 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]
12. 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]
13. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

33. 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]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-9-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. 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]
10. 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]
11. 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]
12. 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]
13. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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33. 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]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-10-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. 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]
10. 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]
11. 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]
12. 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]
13. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

33. 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]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-11-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. 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]
10. 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]
11. 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]
12. 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]
13. 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]

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

14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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33. 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]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-12-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NOx (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]
10. 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]
11. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NOx (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102]
12. 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]
13. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NOx (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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

33. 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]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-13-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. 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]
10. 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]
11. 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]
12. 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]
13. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

33. 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]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-14-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NOx (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 SOx - 0.009 g/hp-hr. Compliance with the NOx, 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]
10. 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]
11. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NOx (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102]
12. 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]
13. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NOx (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SOx - 2.0 lb/day. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

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

33. 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]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-15-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. Emission rates from this unit, except during start-up and shutdown periods, shall not exceed any of the following limits: NOx (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 SOx - 0.009 g/hp-hr. Compliance with the NOx, 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]
10. 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]
11. During periods of start-up or shutdown, engine exhaust emissions shall not exceed any of the following limits: NOx (as NO₂) - 6.8 lb/hr, CO - 2.56 lb/hr, or VOC - 2.05 lb/hr. [District Rules 2201 and 4102]
12. 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]
13. Emissions from this unit, on days when a start-up and/or shutdown occurs, shall not exceed any of the following limits: NOx (as NO₂) - 42.6 lb/day, CO - 35.3 lb/day, VOC - 29.7 lb/day, PM₁₀ - 6.4 lb/day, or SOx - 2.0 lb/day. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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33. 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]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-3775-16-5

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

4,157 BHP DEUTZ GMBH MODEL TBG632V16 LEAN-BURN NATURAL GAS-FIRED IC ENGINE WITH SELECTIVE CATALYTIC REDUCTION (SCR) AND CO & VOC CATALYSTS, POWERING AN 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]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The engine shall be fired solely on PUC regulated natural gas. [District Rules 2201 and 4801]
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 2201]
7. Exhaust stack height shall be greater than or equal to 25 feet. [District Rule 4102]
8. The total combined operating hours of permit units C-3774-1 through -16 shall not exceed 40,000 hours per year. [District Rule 2201]
9. 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]
10. 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]
11. 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]
12. 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]
13. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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14. 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]
15. 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]
16. 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]
17. 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]
18. 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]
19. 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]
20. 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]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. 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]
24. 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]

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25. 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]
26. 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]
27. 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]
28. 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]
29. 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]
30. 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]
31. 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]
32. 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]

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