

December 7, 2021

Neil McDougald
E & J Gallo Winery
5610 E Olive Ave
Fresno, CA 93727

RE: Notice of Final Action - Authority to Construct
Facility Number: C-447
Project Number: C-1203584

Dear Mr. McDougald:

The Air Pollution Control Officer has issued the Authority to Construct permits to E & J Gallo Winery for the modification of an existing anaerobic reactor served by a flare to allow the biogas generated to be sent to any equipment at the facility that is authorized to utilize biogas, and for the installation of a new 1,966 bhp IC engine that will power an electrical generator and will be fueled with natural gas and biogas from the existing anaerobic reactor, at 5610 E Olive Ave, Fresno, CA. Enclosed are the Authority to Construct permits and a copy of the notice of final action that has been posted on the District's website (www.valleyair.org).

Notice of the District's preliminary decision to issue the Authority to Construct permits was posted on October 18, 2021. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on October 19, 2021. No comments were received following the District's preliminary decision on this project.

Also enclosed is an invoice for the engineering evaluation fees pursuant to District Rule 3010. Please remit the amount owed, along with a copy of the attached invoice, within 60 days.

Samir Sheikh
Executive Director/Air Pollution Control Officer

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

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

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

Mr. Neil McDougald
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Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Errol Villegas at (559) 230-6000.

Sincerely,



Brian Clements
Director of Permit Services

BC:rn

Enclosures

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



December 7, 2021

Facility # C-447
E & J GALLO WINERY
5610 E OLIVE AVE
FRESNO, CA 93727

AUTHORITY TO CONSTRUCT (ATC)

QUICK START GUIDE

1. **Pay Invoice:** Please pay enclosed invoice before due date.
2. **Modify Your Title V Permit.** Prior to operating the equipment authorized under this ATC, submit an application to modify your Title V permit. See application forms at <http://www.valleyair.org/permits/TVforms>.
3. **Fully Understand ATC:** Make sure you understand ALL conditions in the ATC prior to construction, modification and/or operation.
4. **Follow ATC:** You must construct, modify and/or operate your equipment as specified on the ATC. Any unspecified changes may require a new ATC.
5. **Notify District:** You must notify the District's Compliance Department, at the telephone numbers below, upon start-up and/or operation under the ATC. Please record the date construction or modification commenced and the date the equipment began operation under the ATC. You may NOT operate your equipment until you have notified the District's Compliance Department. A startup inspection may be required prior to receiving your Permit to Operate.
6. **Source Test:** Schedule and perform any required source testing. See http://www.valleyair.org/busind/comply/source_testing.htm for source testing resources.
7. **Maintain Records:** Maintain all records required by ATC. Records are reviewed during every inspection (or upon request) and must be retained for at least 5 years. Sample record keeping forms can be found at http://www.valleyair.org/busind/comply/compliance_forms.htm.

By operating in compliance, you are doing your part to improve air quality for all Valley residents.

**For assistance, please contact District Compliance staff at
any of the telephone numbers listed below.**

Samir Sheikh

Executive Director/Air Pollution Control Officer

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

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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

AUTHORITY TO CONSTRUCT

PERMIT NO: C-447-226-14

ISSUANCE DATE: 12/07/2021

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY

MAILING ADDRESS: 5610 E OLIVE AVE
FRESNO, CA 93727

LOCATION: 5610 E OLIVE AVE
FRESNO, CA 93727

EQUIPMENT DESCRIPTION:

MODIFICATION OF 175,320 GALLON WINERY WASTEWATER ANAEROBIC REACTOR SERVED BY A BIOGAS SCRUBBING SYSTEM SHARED WITH C-447-227 AND VENTED TO AN ENCLOSED 39.4 MMBTU/HR VAREC 244EGF FLARE OR BOILERS C-447-1, '-2, '-295, OR '-329, AND 502,000 GALLON WINERY WASTEWATER SULFIDE OXIDATION TANK: MODIFY PERMIT EQUIPMENT DESCRIPTION TO ALLOW BIOGAS TO BE SENT TO ADDITIONAL EQUIPMENT AUTHORIZED TO RECEIVE BIOGAS

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. 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] Federally Enforceable Through Title V Permit
6. The primary chamber of the anaerobic reactor shall be enclosed and vented to the biofilter listed on C-447-225. [District Rule 4102]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO



Brian Clements, Director of Permit Services

C-447-226-14 : Dec 7 2021 8:25AM -- NORMANR : Joint Inspection NOT Required

7. Oxygen content of the effluent in the sulfide oxidation tank shall be maintained at a level sufficient to prevent nuisance odors. [District Rule 4102]
8. Emission rates from the flare shall not exceed any of the following limits: NO_x (as NO₂) - 0.06 lb/MMBtu; VOC (as methane) - 0.002 lb/MMBtu; CO - 0.3 lb/MMBtu; or PM₁₀ - 0.008 lb/MMBtu. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
9. The H₂S scrubber shall be in operation whenever biogas is produced in the anaerobic reactors. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The H₂S content of the scrubbed biogas shall not exceed 50 ppmv. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
11. Biogas flow rate to the flare shall not exceed 481,900 scf per day. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
12. Biogas production shall not exceed any of the following: 1st quarter - 31,670,000 scf, 2nd quarter - 31,800,300 scf, 3rd quarter - 83,115,800 scf, 4th quarter 83,115,800 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
13. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
14. The flare outlet shall be equipped with an automatic ignition system, or shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
15. Unless the flare is equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. The flame detection device shall be kept operational at all times except during flare maintenance when the flare is isolated from gas flow. During essential planned power outages when the flare is operating, the pilot monitor is allowed to be non-functional if the flare flame is clearly visible to onsite operators. All pilot monitor downtime shall be reported annually pursuant to Rule 4311, Section 6.2.3.6. [District Rule 4311] Federally Enforceable Through Title V Permit
16. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311] Federally Enforceable Through Title V Permit
17. Flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to District Rule 4311, Section 6.5, and all commitments listed in that plan have been met. This standard does not apply if the APCO determines that the flaring is caused by an emergency as defined by District Rule 4311, Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311] Federally Enforceable Through Title V Permit
18. The operator shall monitor and record the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. [District Rule 4311] Federally Enforceable Through Title V Permit
19. Source testing to measure NO_x and VOC emissions from the flare shall be conducted at least once every twelve (12) months. [District Rule 4311] Federally Enforceable Through Title V Permit
20. 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 30 days prior to testing. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District within 60 days after completion of the source test. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
22. NO_x emissions for source test purposes shall be determined using EPA Method 19 on a heat input basis, or EPA Method 3A, EPA Method 7E, or ARB 100 on a ppmv basis. [District Rule 4311] Federally Enforceable Through Title V Permit

23. VOC emissions for source test purposes shall be determined using EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
24. Oxygen (O₂) concentration of flared gas shall be determined using EPA Method 3A, EPA Method 7E, or ARB 100. [District Rule 4311] Federally Enforceable Through Title V Permit
25. Measurement of halogenated exempt compounds shall be performed using EPA Method 18 or ARB Method 422 "Determination of Volatile organic Compounds in Emission from Stationary Sources". [District Rule 4311] Federally Enforceable Through Title V Permit
26. The higher heating value (HHV) of the gas flared shall be determined using ASTM D1826-88, ASTM 1945-81 in conjunction with ASTM D3588-89, or an alternative method approved by the EPA and the District. [District Rule 4311] Federally Enforceable Through Title V Permit
27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit
28. H₂S content of the exhaust from the biological reactor serving the scrubber shall not exceed 1 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Residual dissolved oxygen level in the sulfide oxidation tank shall not fall below 1 milligram per liter. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
30. Permittee shall monitor the H₂S content of the biogas at the inlet and at the outlet of the scrubber on a weekly basis. If the outlet H₂S concentration does not exceed 50 ppmv for four consecutive weeks, monitoring may be conducted on a monthly basis. If the H₂S concentration at the outlet exceeds 50 ppmv, weekly monitoring shall resume. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Permittee shall monitor the residual dissolved oxygen content of the sulfide oxidation tank at least on a weekly basis. If the residual dissolved oxygen content does not fall below 1 mg/liter for four consecutive weeks, monitoring may be conducted on a monthly basis. If the concentration falls below 1 mg/liter, weekly monitoring shall resume. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
32. The residual dissolved oxygen content sensor for the sulfide oxidation tank shall be calibrated in accordance with the manufacturer's specifications. A copy of the user's manual or like document from the manufacturer shall be maintained onsite so that the District may verify calibration frequency and procedures. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
33. If the residual dissolved oxygen content in the sulfide oxidation tank falls below 1 mg/liter, the permittee shall immediately correct the system. If concentration falls below 1 mg/liter for more than 10 consecutive minutes, the permittee shall notify the District within the following 1 hour. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
34. The operator of a flare subject to flare minimization plans (FMPs) pursuant to District Rule 4311, Section 5.11 shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311] Federally Enforceable Through Title V Permit
35. The operator of a flare subject to flare minimization plans pursuant to District Rule 4311, Section 5.11 shall submit an annual report to the APCO that summarizes all Reportable Flaring Events as defined in Section 3.0 that occurred during the previous 12 month period. The report shall be submitted within 30 days following the end of the previous calendar year. The report shall include, but is not limited to all of the following: 1) The results of an investigation to determine the primary cause and contributing factors of the flaring event; 2) Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented; 3) If appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and 4) The date, time, and duration of the flaring event. [District Rule 4311] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The operator of a flare subject to flare monitoring requirements pursuant to District Rule 4311 shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day for the previous calendar year; 2) Flare monitoring system downtime periods, including dates and times, as applicable pursuant to Section 6.9; and 3) For flares subject to the annual throughput thresholds specified in Table 2, include the annual throughput in MMBtu for the previous calendar year. [District Rule 4311] Federally Enforceable Through Title V Permit
37. Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by this section, the existing FMP shall no longer be considered an approved plan. [District Rule 4311] Federally Enforceable Through Title V Permit
38. An updated FMP shall be submitted by the operator pursuant to Rule 4311, Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated FMP submittals are only required if: 1) The equipment change would require an authority to construct (ATC) and would impact the emissions from the flare, and 2) The modification is not solely the removal or decommissioning of equipment that is listed in the FMP, and has no associated increase in flare emissions. [District Rule 4311] Federally Enforceable Through Title V Permit
39. Permittee shall maintain the following records: a copy of the source testing result conducted pursuant to Rule 4311, Section 6.4.2; a copy of the approved flare minimization plan pursuant to Section 6.5; and copies of annual reports submitted to the APCO pursuant to Section 6.2. [District Rule 4311] Federally Enforceable Through Title V Permit
40. Permittee shall maintain a log of the residual dissolved oxygen content sensor calibrations, which shall include the date and time of each calibration and any corrective actions. The records shall be retained, maintained on-site for at least five years, and made available for District inspection upon request. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
41. Permittee shall maintain records of: (1) daily biogas production, (2) measured H₂S concentration in biogas, (3) date H₂S measurements taken from exhaust of biological reactor serving the scrubber, (4) measured concentration level of residual dissolved oxygen content taken from sulfide oxidation tank, and (5) date measurement of concentration level of residual dissolved oxygen content taken from sulfide oxidation tank. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
42. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
43. An Authority to Construct (ATC) application shall be submitted for this unit for compliance with the applicable throughput and/or emission limits of District Rule 4311 (Amended December 17, 2020), Section 5.9 by July 1, 2022 and the unit shall be in full compliance with the applicable throughput and/or emission limits of District Rule 4311, Section 5.9 by the dates specified in District Rule 4311, Section 7. [District Rule 4311] Federally Enforceable Through Title V Permit

AUTHORITY TO CONSTRUCT

PERMIT NO: C-447-352-0

ISSUANCE DATE: 12/07/2021

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY

MAILING ADDRESS: 5610 E OLIVE AVE
FRESNO, CA 93727

LOCATION: 5610 E OLIVE AVE
FRESNO, CA 93727

EQUIPMENT DESCRIPTION:

1,966 BHP JENBACHER MODEL JMC420 GS NATURAL GAS/DIGESTER GAS-FIRED LEAN-BURN IC ENGINE WITH A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND OXIDATION CATALYST POWERING AN ELECTRICAL GENERATOR

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct (ATC), permittee shall surrender NOx emission reduction credits (ERCs) for the following quantity of emissions: 1st quarter - 741 lb, 2nd quarter - 741 lb, 3rd quarter - 741 lb, and 4th quarter - 741 lb. These amounts include the applicable offset ratio specified in Rule 2201, Section 4.8 (as amended 8/15/19). NOx ERCs used to satisfy the offset quantity required under District Rule 2201 must be surplus at the time of issuance of this ATC and the total quantity of ERCs surrendered shall be calculated based on the ERC surplus value percent discount of each ERC certificate used. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Number N-1568-2 (or certificates split from this certificate) shall be used to supply the required NOx offsets, unless a revised offsetting proposal is received and approved by the District, upon which this ATC shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO



Brian Clements, Director of Permit Services

C-447-352-0 : Dec 7 2021 8:26AM - NORMANR : Joint Inspection NOT Required

5. Prior to operating equipment under this Authority to Construct (ATC), permittee shall surrender VOC emission reduction credits (ERCs) for the following quantity of emissions: 1st quarter - 710 lb, 2nd quarter - 710 lb, 3rd quarter - 710 lb, and 4th quarter - 710 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19). VOC ERCs used to satisfy the offset quantity required under District Rule 2201 must be surplus at the time of issuance of this ATC and the total quantity of ERCs surrendered shall be calculated based on the ERC surplus value percent discount of each ERC certificate used. [District Rule 2201] Federally Enforceable Through Title V Permit
6. ERC Certificate Numbers S-4442-1, S-4751-1, and/or S-4773-1 (or certificates split from these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this ATC shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
7. All equipment shall be maintained in good operating condition and shall be operated in a manner consistent with good air pollution control practice to minimize emissions of air contaminants. [District Rule 2201 and 40 CFR 60.4243] Federally Enforceable Through Title V Permit
8. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit
11. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
12. 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 California Air Resources Board (CARB) document titled Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 8,400 hours in any 12 consecutive month period. [District Rule 2201] Federally Enforceable Through Title V Permit
14. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. This engine shall only be fueled with PUC-regulated natural gas, digester gas, or a blend of PUC-regulated natural gas and digester gas. [District Rules 2201, 4702, and 4801] Federally Enforceable Through Title V Permit
16. The sulfur content of the digester gas and natural gas/digester gas blends used as fuel in this engine shall not exceed 40 ppmv as H₂S. An averaging period of up to one calendar day in length may be utilized for demonstration of compliance with the digester gas sulfur content limit. [District Rules 2201, 4702, and 4801] Federally Enforceable Through Title V Permit
17. Commissioning activities are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and the construction contractor to ensure safe and reliable operation of the reciprocating IC engine, emission control equipment, and associated electrical delivery systems. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The commissioning period shall commence when all mechanical, electrical, and control systems are installed and individual system startup has been completed, or when the reciprocating engine is first fired, whichever occurs first. The commissioning period shall terminate when the engine has completed initial tuning and testing and the engine is available for commercial operation. The total duration of the commissioning period for this engine shall not exceed 50 hours of operation. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

19. The owner/operator shall minimize the emissions from the engine to the maximum extent feasible during the commissioning period. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The oxidation catalyst(s) shall be installed and ready for operation prior to commencement of the commissioning period. [District Rule 2201] Federally Enforceable Through Title V Permit
21. At the earliest feasible opportunity, in accordance with the recommendations of the equipment supplier and/or the construction contractor, the engine shall be tuned to minimize emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
22. At the earliest feasible opportunity, in accordance with the recommendations of the equipment supplier and/or the construction contractor, the emission control catalyst system(s) shall be installed, adjusted, and operated to minimize emissions from this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
23. The permittee shall prepare and maintain a summary of activities to be performed during the commissioning period prior to the first firing of this engine. The summary shall include a list of each commissioning activity, the anticipated duration of each activity in hours, and the purpose of the activity. The activities described shall include, but are not limited to, the tuning of the engine, the installation and operation of the SCR system, and any activities requiring the firing of this unit without abatement by the SCR system. [District Rule 2201] Federally Enforceable Through Title V Permit
24. During the commissioning period, emission rates from this IC engine shall not exceed any of the following limits: 0.6 g-NOx/bhp-hr, 0.05 g-PM10/bhp-hr, 0.15 g-CO/bhp-hr, or 0.052 g-VOC/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
25. The total number of firing hours of this unit without abatement of emissions by the SCR system shall not exceed 50 hours during the commissioning period. Such operation of this unit without abatement shall be limited to discrete commissioning activities that can only be properly executed without the SCR system. Upon completion of these activities, the unused balance of the 50 firing hours without abatement shall expire. [District Rule 2201] Federally Enforceable Through Title V Permit
26. The permittee shall record total operating time of the engine in hours during the commissioning period. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Coincident with the end of the commissioning period, emissions from this IC engine shall not exceed any of the following limits: 0.049 g-NOx/bhp-hr when 50% or less of the fuel heat input is from digester gas and 0.051 g-NOx/bhp-hr when more than 50% of the fuel heat input is from digester gas (equivalent to 4.1 ppmvd NOx @ 15% O₂), NOx referenced as NO₂; 0.032 g-PM10/bhp-hr when fueled with natural gas, and 0.05 g-PM10/bhp-hr when fueled with digester gas or a natural gas/digester gas blend; 0.14 g-CO/bhp-hr when 50% or less of the fuel heat input is from digester gas and 0.15 g-CO/bhp-hr when more than 50% of the fuel heat input is from digester gas (equivalent to 19.5 ppmvd CO @ 15%); and 0.052 g-VOC/bhp-hr (equivalent to 12.0 ppmvd VOC @ 15% O₂), VOC referenced as CH₄. [District Rules 2201, 4102, and 4702, and 40 CFR 60.4233] Federally Enforceable Through Title V Permit
28. Ammonia (NH₃) emissions from this engine shall not exceed 10 ppmvd @ 15% O₂. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
29. Source testing to measure NOx, CO, VOC, PM10, and ammonia (NH₃) emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules 1081, 2201, and 4702, and 40 CFR 60.4243] Federally Enforceable Through Title V Permit
30. Source testing to measure NOx, CO, VOC, and ammonia (NH₃) emissions from this unit shall be conducted at least once every 8,760 hours of operation or 24 months, whichever comes first. [District Rules 1081, 2201, and 4702 and 40 CFR 60.4243] Federally Enforceable Through Title V Permit
31. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
32. The results of each source test shall be submitted to the District and EPA within 60 days after completion of the source test. [District Rule 1081 and 40 CFR 60.4245] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

33. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702 and 40 CFR 60.4244] Federally Enforceable Through Title V Permit
34. For emissions source testing, the arithmetic average of three 60-consecutive-minute test runs shall apply. Each test run shall be conducted within 10 percent of 100 percent peak (or the highest achievable) load. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane (however, VOC may also be reported as propane only for demonstration of compliance with the VOC limits in 40 CFR 60 Subpart JJJJ). NO_x, CO, VOC, and NH₃ concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702 and 40 CFR 60.4244] Federally Enforceable Through Title V Permit
35. The following methods shall be used for source testing: NO_x (ppmv) - EPA Method 7E; CO (ppmv) - EPA Method 10; VOC (ppmv) - EPA Method 18, or 25A or 25B; stack gas oxygen - EPA Method 3 or 3A; stack gas velocity/volumetric flowrate - EPA Method 2 or EPA Method 19; stack gas moisture content - EPA Method 4; PM₁₀ (filterable and condensable) - EPA Method 201 and 202, EPA Method 201a and 202, or ARB Method 5 in combination with Method 501; NH₃ - BAAQMD ST-1B or SCAQMD Method 207-1. Alternative test methods as approved by EPA and the District may be used to address the source testing requirements of this permit. [District Rules 1081, 2201, and 4702] Federally Enforceable Through Title V Permit
36. The higher heating value (HHV) of the fuel gas shall be determined using ASTM D1826, ASTM 1945 in conjunction with ASTM D3588, or an alternative method approved by EPA and the District. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
37. Fuel sulfur content analysis of the digester gas used to fuel this engine shall be performed within 60 days of initial start-up using EPA Method 11 or EPA Method 15, as appropriate, or an alternative method approved by EPA and the District. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
38. Fuel sulfur content analysis of the digester gas used to fuel this engine shall be performed at least annually using EPA Method 11 or EPA Method 15, as appropriate, or an alternative method approved by EPA and the District. Records of the fuel sulfur analysis shall be maintained and provided to the District upon request. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
39. The sulfur content of the digester gas used to fuel the engine shall be monitored and recorded at least once every calendar quarter. If quarterly monitoring shows a violation of the fuel sulfur content limit of this permit, monthly monitoring will be required until six consecutive months of monitoring show compliance with the fuel sulfur content limit. Once compliance with the fuel sulfur content limit is shown for six consecutive months, then the monitoring frequency may return to quarterly. Monitoring of the sulfur content of the digester gas fuel shall not be required if the engine does not operate during that period. Records of the results of monitoring of the digester gas fuel sulfur content shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
40. Monitoring of the digester gas sulfur content shall be performed using gas detection tubes calibrated for H₂S; District-approved test methods, including EPA Method 11 or EPA Method 15, ASTM Method D1072, D1945, D4084, D4468, D4810 or D5504; a continuous analyzer employing gas chromatography; a continuous fuel gas monitor that meets the requirements specified in SCAQMD Rule 431.1, Attachment A; or an alternative method approved by EPA and the District. The permittee shall maintain records of any in-line monitors used to demonstrate compliance with the digester gas sulfur content limit of this permit, including the make, model, and detection limits of the monitor(s). [District Rule 2201] Federally Enforceable Through Title V Permit
41. Coincident with the end of the commissioning period, the permittee shall monitor and record the stack concentration of NO_x and O₂ at least once every day (in which a source test is not performed) using a portable emission monitor that satisfies District specifications or in-stack emission monitors that satisfy District specifications required for portable analyzers. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2201 and 4702, and 40 CFR 64] Federally Enforceable Through Title V Permit

42. The permittee shall monitor and record the stack concentration of CO and O₂ at least once every calendar month (in which a source test is not performed) using a portable emission monitor that satisfies District specifications or in-stack emission monitors that satisfy District specifications required for portable analyzers. 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. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
43. Portable emission monitors and in-stack emission monitors shall be calibrated using EPA protocol calibration gases a minimum of once within every 30 days prior to each use. Records of calibration dates, instruments calibrated, gas readings prior to calibration, calibration gases used, and calibration gas certification and expiration dates shall be maintained. [District Rules 2201 and 4702, and 40 CFR 64] Federally Enforceable Through Title V Permit
44. The permittee shall monitor and record the stack concentration of NH₃ at least once every calendar month 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 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
45. If the NO_x, CO, or NH₃ concentrations corrected to 15% O₂, as measured by the portable analyzer, the District-approved in-stack emission monitor(s), or the District-approved ammonia monitoring equipment, exceed the respective permitted emissions concentration(s), 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 or ammonia monitoring equipment readings continue to exceed the permitted emissions concentration(s) 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 2201 and 4702, and 40 CFR 64] Federally Enforceable Through Title V Permit
46. 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 and any in-stack emission monitors 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
47. 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 portable emission analyzer(s) and in-stack emission analyzer(s), (4) emission 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 Rules 2201 and 4702, and 40 CFR 64] Federally Enforceable Through Title V Permit
48. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
49. This engine shall be operated within the ranges that the source testing has shown result in pollution emission rates within the emissions limits as specified on this permit. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

50. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: the hours of operation for commissioning of the engine, the total hours of operation, the type and quantity of each fuel used, maintenance and modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. Quantity of fuel used shall be recorded in standard cubic feet using a non-resettable, totalizing mass or volumetric fuel flow meter or other APCO approved-device. [District Rules 2201, 4701, and 4702, and 40 CFR 60.4243 and 40 CFR 60.4245] Federally Enforceable Through Title V Permit
51. Records shall be maintained of the composition of the fuel used during each source test, including the percent blend of natural gas and digester gas on a volumetric and heat input basis in the fuel used. [District Rule 2201] Federally Enforceable Through Title V Permit
52. 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
53. The permittee shall document that the natural gas used as fuel in the engine is from a PUC regulated source. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
54. Records shall be maintained of the total hours of operation of this engine, calculated on a rolling 12-month basis. [District Rule 2201] Federally Enforceable Through Title V Permit
55. All records shall be maintained and retained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702 and 40 CFR 60.4245] Federally Enforceable Through Title V Permit
56. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR 64.7. [40 CFR 64.7] Federally Enforceable Through Title V Permit
57. 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 64.8. [40 CFR 64.8] Federally Enforceable Through Title V Permit
58. The permittee shall comply with the record keeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64.9] Federally Enforceable Through Title V Permit
59. Notification of the date construction of this engine commenced shall be submitted to the District and EPA and shall be postmarked no later than 30 days after such date as construction commenced. The notification shall contain the following information: 1) Name and address of the owner or operator; 2) The address of the affected source; 3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; 4) Emission control equipment; and 5) Fuel used. Notification of construction and copies of source test results shall be submitted to EPA at the following address: Director, Air Division, U.S. Environmental Protection Agency, 75 Hawthorne Street, San Francisco, CA 94105. [40 CFR 60.4245] Federally Enforceable Through Title V Permit