



JAN - 2 2020

Mr. Stephen Maddox
Maddox Farms
3899 W Davis Ave
Riverdale, CA 93656

Re: Notice of Final Action - Title V Permit Renewal
Facility Number: C-6927
Project Number: C-1182160

Dear Mr. Maddox:

The District has issued the Final Renewed Title V Permit for Maddox Farms (see enclosure). The preliminary decision for this project was made on November 7, 2019. No comments were received subsequent to the District preliminary decision.

The public notice for issuance of the Final Title V Permit will be posted on the District's website (www.valleyair.org).

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

Sincerely,

Arnaud Marjollet
Director of Permit Services

Enclosures

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

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



Facility # C-6927
MADDOX FARMS
12863 W KAMM AVE
RIVERDALE, CA 93656-9735

Notice of Permit Issuance

The enclosed permit unit requirements authorize the operation of the equipment as described. These permit unit requirements supersede any and all previous permits for the specified equipment.* Please insert these documents into the Facility Permit to Operate, and post copies on or near the equipment as required by District Rule 2010.

Please contact any of our Small Business Assistance (SBA) staff at the numbers below if you have any questions:

Modesto:	(209) 557-6446
Fresno:	(559) 230-5888
Bakersfield:	(661) 392-5665

*Failure to comply with the permit unit requirements may result in enforcement action.

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)

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Southern Region

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



Permit to Operate

FACILITY: C-6927

EXPIRATION DATE: 12/31/2023

LEGAL OWNER OR OPERATOR:

MADDOX FARMS

MAILING ADDRESS:

12863 W KAMM AVE
RIVERDALE, CA 93656-9735

FACILITY LOCATION:

12863 W KAMM AVE
RIVERDALE, CA 93656-9735

FACILITY DESCRIPTION:

AGRICULTURAL CROP PRODUCTION

The Facility's Permit to Operate may include Facility-wide Requirements as well as requirements that apply to specific permit units.

This Permit to Operate remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require prior District approval. This permit shall be posted as prescribed in District Rule 2010.

Samir Sheikh

Executive Director / APCO

Arnaud Marjollet

Director of Permit Services

San Joaquin Valley Air Pollution Control District

FACILITY: C-6927-0-2

EXPIRATION DATE: 12/31/2023

FACILITY-WIDE REQUIREMENTS

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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: MADDIX FARMS
Location: 12863 W KAMM AVE, RIVERDALE, CA 93856-9735
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10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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35. The owner or operator shall comply with Sections 5.1 through 5.3 of District Rule 8081 and shall sufficiently implement at least one of the control measures indicated in each section of Table 8081-1 to limit Visible Dust Emissions to 20% opacity or to comply with the conditions for a stabilized surface as defined in Rule 8011, unless specifically exempted under Section 4.0 of Rule 8081 (9/16/2004) or Rule 8011 (8/19/2004). The owner or operator shall also comply with all applicable requirements of Regulation VIII unless specifically exempted by the applicable rules. [District Rules 8081 and 8011] Federally Enforceable Through Title V Permit
36. The owner or operator shall implement the applicable conservation management practices (CMP) selected in the approved CMP plan pursuant to Section 6.2 of District Rule 4550 (8/19/04). The owner or operator shall submit a CMP application to the APCO prepared pursuant to Section 6.1 of District Rule 4550 (8/19/04) within 90 days for an agricultural operation site or an agricultural parcel that is acquired or becomes subject to District Rule 4550 and within 60 days of any operational, administrative, or other modification that necessitates revision of the CMP Plan. The owner or operator shall maintain a copy of each CMP application, CMP plan, and any supporting information necessary to confirm the implementation of the CMPs for a minimum of five (5) years. [District Rule 4550] Federally Enforceable Through Title V Permit
37. 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
38. 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
39. 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
40. 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
41. 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
42. 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
43. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
44. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
45. 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]

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

46. On October 31, 2014, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin November 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-2-5

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

200 BHP CUMMINS MODEL G855 (S/N 25234606) NATURAL GAS-FIRED IC ENGINE WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702 and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 5,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-3-4

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

200 BHP CUMMINS MODEL G855 (S/N 25231340) NATURAL GAS-FIRED IC ENGINE WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702 and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 5,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-4-5

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

200 BHP CUMMINS MODEL G855 (S/N 25224075) NATURAL GAS-FIRED IC ENGINE WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702 and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 5,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months; whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-6-5

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

200 BHP CUMMINS MODEL G855 (S/N 25230603) NATURAL GAS-FIRED IC ENGINE WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702 and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 5,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-7-5

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

200 BHP CUMMINS MODEL G855 (S/N 25224558) NATURAL GAS-FIRED IC ENGINE WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702 and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 5,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-8-4

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

200 BHP CUMMINS MODEL G855 (S/N 25236803) NATURAL GAS-FIRED IC ENGINE WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702 and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 5,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-9-4

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

200 BHP CUMMINS MODEL G855 (S/N 25231336) NATURAL GAS-FIRED IC ENGINE WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702 and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 5,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-10-4

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

200 BHP CUMMINS MODEL G855 (S/N 25275632) NATURAL GAS-FIRED IC ENGINE WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702 and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 5,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-14-5

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

250 BHP CUMMINS MODEL GTA12 (S/N 25227998) NATURAL GAS-FIRED IC ENGINE WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702 and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 5,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-22-2

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

TRANSPORTABLE 190 BHP CUMMINS MODEL QSB 6.7 TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE (S/N 46711223, UNIT #6) POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. Emissions from this unit shall not exceed any of the following limits: 2.7 g-NOx/bhp-hr, 0.12 g-VOC/bhp-hr, or 1.2 g-CO/bhp-hr. [District Rules 2201 and 4702, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. PM10 emissions shall not exceed 0.13 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
4. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall not be operated at one location or site at a facility for more than 12 consecutive months, or if at a seasonal source, the engine shall not be operated at one location or site at a facility for more than the duration of the season. [District Rule 2201, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. 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
8. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
9. The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-23-2

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

TRANSPORTABLE 190 BHP CUMMINS MODEL QSB 6.7 TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE (S/N 46700122, UNIT #7) POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. Emissions from this unit shall not exceed any of the following limits: 2.7 g-NOx/bhp-hr, 0.12 g-VOC/bhp-hr, or 1.2 g-CO/bhp-hr. [District Rules 2201 and 4702, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. PM10 emissions shall not exceed 0.13 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
4. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall not be operated at one location or site at a facility for more than 12 consecutive months, or if at a seasonal source, the engine shall not be operated at one location or site at a facility for more than the duration of the season. [District Rule 2201, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. 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
8. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
9. The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-24-2

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

TRANSPORTABLE 190 BHP CUMMINS MODEL QSB 6.7 TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE (S/N 46711055, UNIT #4) POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. Emissions from this unit shall not exceed any of the following limits: 2.7 g-NO_x/bhp-hr, 0.12 g-VOC/bhp-hr, or 1.2 g-CO/bhp-hr. [District Rules 2201 and 4702, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. PM₁₀ emissions shall not exceed 0.13 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
4. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall not be operated at one location or site at a facility for more than 12 consecutive months, or if at a seasonal source, the engine shall not be operated at one location or site at a facility for more than the duration of the season. [District Rule 2201, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. 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
8. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
9. The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-25-2

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

TRANSPORTABLE 190 BHP CUMMINS MODEL QSB 6.7 TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE (S/N 46711097, UNIT #5) POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. Emissions from this unit shall not exceed any of the following limits: 2.7 g-NOx/bhp-hr, 0.12 g-VOC/bhp-hr, or 1.2 g-CO/bhp-hr. [District Rules 2201 and 4702, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. PM10 emissions shall not exceed 0.13 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
4. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall not be operated at one location or site at a facility for more than 12 consecutive months, or if at a seasonal source, the engine shall not be operated at one location or site at a facility for more than the duration of the season. [District Rule 2201, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. 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
8. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
9. The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-26-2

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

TRANSPORTABLE 190 BHP CUMMINS MODEL QSB 6.7 TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE (S/N 46711132, UNIT #8) POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. Emissions from this unit shall not exceed any of the following limits: 2.7 g-NO_x/bhp-hr, 0.12 g-VOC/bhp-hr, or 1.2 g-CO/bhp-hr. [District Rules 2201 and 4702, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. PM₁₀ emissions shall not exceed 0.13 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
4. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall not be operated at one location or site at a facility for more than 12 consecutive months, or if at a seasonal source, the engine shall not be operated at one location or site at a facility for more than the duration of the season. [District Rule 2201, 40 CFR Part 89, and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. 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
8. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
9. The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-33-4

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

260 BHP CUMMINS MODEL 8.3 TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE (S/N 73163852, UNIT 17-3) POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. Emissions from this IC engine shall not exceed any of the following limits: 2.83 g-NOx/bhp-hr, 1.30 g-CO/bhp-hr, or 0.15 g-VOC/bhp-hr. [District Rules 2201 and 4702, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
4. Emissions from this IC engine shall not exceed 0.11 g-PM10/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
5. This engine shall be fired on CARB certified diesel fuel containing not more than 0.0015% sulfur by weight. [District Rules 2201 and 4801, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
7. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
8. The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. 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 Rules 2201 and 4702] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-34-2

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

335 BHP CUMMINS MODEL QSM11 TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE (S/N 3527738, UNIT 21-3)
POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. Emissions from this IC engine shall not exceed any of the following limits: 2.66 g-NOx/bhp-hr, 0.67 g-CO/bhp-hr, or 0.17 g-VOC/bhp-hr. [District Rules 2201 and 4702, 17 CCR 93115 and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
3. Emissions from this IC engine shall not exceed 0.07 g-PM10/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
4. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
5. This engine shall be equipped with an operational nonresettable elapsed time meter with a minimum display capability of 9,999 hours. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
7. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
8. The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
9. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-35-2

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

360 BHP CUMMINS MODEL QSM-11 TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE (S/N 35277331, UNIT 17-7)
POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. Emissions from this IC engine shall not exceed any of the following limits: 2.66 g-NOx/bhp-hr, 0.67 g-CO/bhp-hr, or 0.17 g-VOC/bhp-hr. [District Rules 2201 and 4702, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
3. Emissions from this IC engine shall not exceed 0.07 g-PM10/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
4. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
5. This engine shall be equipped with an operational nonresettable elapsed time meter with a minimum display capability of 9,999 hours. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
7. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
8. The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
9. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-36-4

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

360 BHP CUMMINS MODEL QSM-11 TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE (S/N 35277330, UNIT 18-18)
POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. 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]
4. Operation of this engine shall not exceed 5,000 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emissions from this IC engine shall not exceed any of the following limits: 2.66 g-NOx/bhp-hr, 0.67 g-CO/bhp-hr, or 0.17 g-VOC/bhp-hr. [District Rules 2201 and 4702, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
6. Emissions from this IC engine shall not exceed 0.07 g-PM10/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
7. This engine shall be fired on CARB certified diesel fuel containing not more than 0.0015% sulfur by weight. [District Rules 2201 and 4801, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
8. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
9. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
10. The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
12. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-37-7

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

300 BHP CUMMINS MODEL QSL9 C300 S/N 73080792 TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
2. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. Operation of this engine shall not exceed 5,000 hours per year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
4. Emissions from this IC engine shall not exceed any of the following limits: 2.75 g-NOx/bhp-hr, 2.6 g-CO/bhp-hr, or 0.15 g-VOC/bhp-hr. [District Rules 2201 and 4702, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
5. Emissions from this IC engine shall not exceed 0.15 g-PM10/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
6. This engine shall be fired on CARB certified diesel fuel containing not more than 0.0015% sulfur by weight. [District Rules 2201 and 4801, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
7. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
8. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
9. The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
10. The permittee shall record the total time the engine operates, in hours per calendar year. [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.

11. 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 Rules 2201 and 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-40-3

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

256 BHP CUMMINS MODEL GTA855P1 (S/N 25289651) NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702 and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 4,500 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-41-3

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

256 BHP CUMMINS MODEL GTA855P1 S/N 25290506 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702 and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 4,500 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-42-3

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

256 BHP CUMMINS MODEL GTA855P1 (S/N 25290383) NATURAL GAS-FIRED IC ENGINE WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702 and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 4,500 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-43-3

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

256 BHP CUMMINS MODEL GTA855P1 S/N 25290507 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702 and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 4,500 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-45-3

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

304 BHP CUMMINS MODEL G855 (S/N 25290380) NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A CERTIFIED MURCAL SNGEC SYSTEM POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
2. The add-on emission control system (hereinafter referred to as the "SNGEC System") shall consist of a Compliance Controls (FW Murphy) Model AFR (specify 1R, 9R or 64R) air/fuel ratio controller, a Johnson-Matthey Modulex B or Modulex C three-way catalyst system, two (one pre- and one post-catalyst) Type K thermocouples, a Manifold Absolute Pressure (MAP) sensor, and two (one pre- and one post-catalyst) Zirconia HEGO type oxygen sensors. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The SNGEC System shall be maintained and operated according to the component manufacturer's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702] Federally Enforceable Through Title V Permit
4. A person performing maintenance specific to the SNGEC System shall be certified by MurCal, or work under the direct and personal supervision of an individual physically present at the work site who is certified. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The pre-catalyst exhaust temperature shall be monitored and recorded at least once in each calendar month that the engine operates. If the pre-catalyst exhaust temperature is not between the manufacturer's recommended range of 900 F to 1,250 F, the SNGEC System shall be calibrated or repaired, as necessary. [District Rule 4702] Federally Enforceable Through Title V Permit
6. After the SNGEC System is calibrated or repaired in response to the pre-catalyst temperature falling outside the recommended range, a District-approved portable analyzer shall be used to determine that the NOx and CO emissions and O2 levels are at or below permitted levels. The pre-catalyst exhaust temperatures shall be monitored and recorded at that time and monthly monitoring of the pre-catalyst exhaust temperature shall resume as required in the previous condition. [District Rule 4702] Federally Enforceable Through Title V Permit
7. All emission readings shall be taken with the unit operating at conditions representative of normal operations. The analyzer shall be calibrated, maintained, 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
8. The oxygen sensors shall be replaced when the "health" percentage on the AFR controller shows 50% or less. Whenever the oxygen sensors are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The catalyst module housing and elements shall be visually inspected at least once every calendar quarter. The catalyst shall be washed according to the manufacturer recommendations at least every 8,000 hours and replaced at least every 16,000 hours of operation. [District Rule 4702] Federally Enforceable Through Title V Permit
10. The thermocouples shall be replaced every 36,000 hours of engine operation. Whenever the thermocouples are replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
11. The MAP sensor shall be replaced every 16,000 hours of engine operation. Whenever the MAP sensor is replaced, the SNGEC System shall be calibrated, prior to resuming normal engine operation, according to the procedures outlined by MurCal. [District Rule 4702] Federally Enforceable Through Title V Permit
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201, 4702, and 4801] Federally Enforceable Through Title V Permit
13. Operation of this engine shall not exceed 4,500 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. NOx emissions from this IC engine shall not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
15. Emissions from this IC engine shall not exceed any of the following limits: 1,000 ppmvd CO @ 15% O2 (equivalent to 8.49 g-CO/hp-hr) or 250 ppmvd VOC @ 15% O2 (equivalent to 1.2 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
16. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
17. The engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than eight (8) hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after eight (8) hours, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The operator shall maintain engine operating log records of: 1) the monthly engine hour meter reading; 2) the date and the engine hour meter reading at each oxygen sensor change, MAP sensor change, and thermocouples change; 3) the monthly pre-catalyst exhaust temperature monitoring data; 4) the date and engine hour meter reading of each catalyst module inspection, washing, and replacement; and 5) fuel purchase records. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The District may revise and/or add requirements in the future as necessary to ensure the SNGEC System operates according to its certification requirements. [District Rule 4702] Federally Enforceable Through Title V Permit
22. 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
24. The engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
25. The engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
26. The engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. The permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
29. The permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
30. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
31. 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 Rules 2201 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-48-2

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

TRANSPORTABLE 189 BHP CUMMINS MODEL QSB 6.7 (S/N 46772171) TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This engine may be operated at any of the following facilities: C-6927, C-5208, C-5207. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
4. When operating at facility C-6927, the engine is limited to 2000 hours of operation per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When operating at facility C-5208, the engine is limited to 1750 hours of operation per year. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When operating at facility C-5207, the engine is limited to 925 hours of operation per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. When operating at facility C-6927, the engine must operate at least 804 meters away from the nearest receptor. [District Rule 4102]
8. When operating at facility C-5208, the engine must operate at least 402 meters away from the nearest receptor. [District Rule 4102]
9. When operating at facility C-5207, the engine must operate at least 804 meters away from the nearest receptor. [District Rule 4102]
10. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. Emissions from this unit shall not exceed any of the following limits: 2.85 g-NOx/bhp-hr, 0.15 g-VOC/bhp-hr, or 2.6 g-CO/bhp-hr. [District Rules 2201 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Emissions from this IC engine shall not exceed 0.13 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115] Federally Enforceable Through Title V Permit
13. This engine shall be operated at one location or site at a facility for no more than 12 consecutive months, or if at a seasonal source, the engine shall not be operated at one location or site at a facility for more than the duration of the season. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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
15. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
16. The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
17. The permittee shall record the total time the engine operates at each site, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-49-2

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

TRANSPORTABLE 173 BHP CUMMINS MODEL QSB 6.7 (S/N 73182622) TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. This engine may be operated at any of the following facilities: C-6927, C-5208, C-5207. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
4. When operating at facility C-6927, the engine is limited to 2000 hours of operation per year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When operating at facility C-5208, the engine is limited to 1750 hours of operation per year. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When operating at facility C-5207, the engine is limited to 925 hours of operation per year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. When operating at facility C-6927, the engine must operate at least 804 meters away from the nearest receptor. [District Rule 4102]
8. When operating at facility C-5208, the engine must operate at least 402 meters away from the nearest receptor. [District Rule 4102]
9. When operating at facility C-5207, the engine must operate at least 804 meters away from the nearest receptor. [District Rule 4102]
10. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. Emissions from this unit shall not exceed any of the following limits: 2.85 g-NOx/bhp-hr, 0.15 g-VOC/bhp-hr, or 2.6 g-CO/bhp-hr. [District Rules 2201 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Emissions from this IC engine shall not exceed 0.15 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115] Federally Enforceable Through Title V Permit
13. This engine shall be operated at one location or site at a facility for no more than 12 consecutive months, or if at a seasonal source, the engine shall not be operated at one location or site at a facility for more than the duration of the season. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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14. 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
15. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
16. The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
17. The permittee shall record the total time the engine operates at each site, in hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6927-50-2

EXPIRATION DATE: 12/31/2023

EQUIPMENT DESCRIPTION:

GASOLINE DISPENSING OPERATION WITH ONE 4,000 GALLON GASOLINE HOOVER VAULT ABOVEGROUND STORAGE TANK SERVED BY MORRISON BROTHERS EVR PHASE I VAPOR RECOVERY SYSTEM VR-402-B, STANDING LOSS CONTROL (VR-302-E), AND 1 FUELING POINT WITH 1 GASOLINE DISPENSING NOZZLE SERVED BY HEALY MODEL 400 ORVR VACUUM ASSIST PHASE II VAPOR RECOVERY SYSTEM (G-70-187)

PERMIT UNIT REQUIREMENTS

1. The Phase I, Phase II, and Standing Loss Control Vapor recovery systems shall be maintained in accordance with the manufacturer specifications and the ARB Executive Orders specified in this permit, including applicable rules and regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the Office of the State Fire Marshal of the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board that have been made conditions of the certification. [District Rules 4621 and 4622, and CH&SC 41950] Federally Enforceable Through Title V Permit
2. This gasoline storage and dispensing equipment shall not be used in retail sales, where gasoline dispensed by the unit is subject to payment of California sales tax on gasoline sales. [District Rule 4622] 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. The storage container(s) shall be maintained and operated such that they are leak-free. [District Rule 4621] Federally Enforceable Through Title V Permit
5. The Phase I and Phase II vapor recovery systems and gasoline dispensing equipment shall be maintained without leaks as determined in accordance with the test method specified in this permit. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
6. A leak is defined as the dripping of VOC-containing liquid at a rate of more than three (3) drops per minute, or the detection of any gaseous or vapor emissions with a concentration of total organic compound greater than 10,000 ppmv, as methane, above background when measured in accordance with EPA Test Method 21. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
7. No gasoline delivery vessel shall be operated or be allowed to operate unless valid State of California decals are displayed on the cargo container, which attest to the vapor integrity of the container. [District Rule 4621] Federally Enforceable Through Title V Permit
8. No person shall operate any ARB certified Phase II vapor recovery system or any portion thereof that has a major defect or an equipment defect that is identified in any applicable ARB Executive Order until the following conditions have been met: 1) the defect has been repaired, replaced, or adjusted as necessary to correct the defect; 2) the District has been notified, and the District has reinspected the system or authorized the system for use (such authorization shall not include the authority to operate the equipment prior to the correction of the defective components); and 3) all major defects, after repair, are duly entered into the Operations and Maintenance (O&M) manual. [District Rule 4622] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. Upon identification of any major defects, the permittee shall tag "Out-of-Order" all dispensing equipment for which vapor recovery has been impaired. Tagged equipment shall be rendered inoperable and the tag(s) shall not be removed until the defective equipment has been repaired, replaced, or adjusted, as necessary. In the case of defects identified by the District, tagged equipment shall be rendered inoperable, and the tag shall not be removed until the District has been notified of the repairs, and the District has either reinspected the system or authorized the tagged equipment for use. [District Rule 4622] Federally Enforceable Through Title V Permit
10. The permittee shall implement a periodic maintenance inspection program for the certified Phase II vapor recovery system consistent with the requirements of this permit. The program shall be documented in an operation and maintenance (O&M) manual and shall at a minimum contain the following information: 1) copies of all vapor recovery performance tests; 2) all applicable ARB Executive Orders, Approval Letters, and District Permits; 3) the manufacturer's specifications and instructions for installation, operation, repair, and maintenance required pursuant to ARB Certification Procedure CP-201, and any additional instruction provided by the manufacturer; 4) system and/or component testing requirements, including test schedules and passing criteria for each of the standard tests required by this permit (the owner/operator may include any non-ARB required diagnostic and other tests as part of the testing requirements), and 5) additional O&M instructions, if any, that are designed to ensure compliance with the applicable rules, regulations, ARB Executive Orders, and District permit conditions, including replacement schedules for failure or wear prone components. [District Rule 4622] Federally Enforceable Through Title V Permit
11. The permittee shall conduct periodic maintenance inspections based on the greatest monthly throughput of gasoline dispensed by the facility in the previous year as follows: A) less than 2,500 gallons - one day per month; B) 2,500 to less than 25,000 gallons - one day per week; or C) 25,000 gallons or greater - five days per week. All inspections shall be documented within the O & M Manual. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
12. Periodic maintenance inspections of the Phase I vapor recovery system shall include, at a minimum, verification that 1) the fill caps and vapor caps are not missing, damaged, or loose; 2) the fill cap gasket and vapor cap gaskets are not missing or damaged; 3) the fill adapter and vapor adapter are securely attached to the risers; 4) where applicable, the spring-loaded submerged fill tube seals properly against the coaxial tubing; 5) the dry break (poppet-valve) is not missing or damaged; and 6) the submerged fill tube is not missing or damaged. [District Rule 4621] Federally Enforceable Through Title V Permit
13. Periodic maintenance inspections of the Phase II vapor recovery system shall include, at a minimum, verification that 1) the following nozzle components are in place and in good condition as specified in ARB Executive Order as applicable: faceplate/facecone, bellows, latching device spring, vapor check valve, spout (proper diameter/vapor collection holes), insertion interlock mechanism, automatic shut-off mechanism, and hold open latch (unless prohibited by law or the local fire control authority); 2) the hoses are not torn, flattened or crimped; 3) the vapor path of the coaxial hoses associated with bellows equipped nozzles does not contain more than 100 ml of liquid if applicable; and 4) the vapor processing unit is functioning properly, for operations that are required to have or possess such a unit. [District Rule 4622] Federally Enforceable Through Title V Permit
14. In the event of a separation due to a drive off, the permittee shall, unless otherwise specified in the applicable ARB Executive Order, conduct a visual inspection of the affected equipment and either 1) perform qualified repairs on any damaged components and conduct applicable re-verification tests pursuant to the requirements of this permit, or 2) replace the affected nozzles, coaxial hoses, breakaway couplings, and any other damaged components with new or certified rebuilt components that are ARB certified. The activities shall be documented in accordance with the requirements of this permit before placing the affected equipment back in service. [District Rule 4622] Federally Enforceable Through Title V Permit
15. The permittee shall conduct all periodic vapor recovery system performance tests specified in this permit, no more than 30 days before or after the required compliance testing date, unless otherwise required under the applicable ARB Executive Order. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
16. The permittee shall perform and pass a Static Leak Test "Determination of Static Pressure Performance of Vapor Recovery Systems at Gasoline Dispensing Facilities with Aboveground Tanks" in accordance with the Executive Order specified in this permit for the Phase I Vapor Recovery System at least once every 12 months. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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17. The permittee shall perform and pass a "Vapor Return Line Vacuum Integrity Test" for the Healy Model 400 ORVR System per Exhibit 4 of Executive Order G-70-187 at least once every 12 months. [District Rule 4622] Federally Enforceable Through Title V Permit
18. The permittee shall perform and pass a "Fillneck Vapor Pressure Regulation Fueling Test" for the Healy Model 400 ORVR System per Exhibit 5 of Executive Order G-70-187 at least once every 12 months. [District Rule 4622] Federally Enforceable Through Title V Permit
19. The facility gasoline throughput shall not exceed 10,000 gallons per month. [District Rules 2201 and 4622] Federally Enforceable Through Title V Permit
20. The permittee shall conduct a physical inspection of the equipment and manually monitor the system vacuum levels at the system vacuum gauge during a dispensing episode at least once per day of use. The inspection results and vacuum observations shall be recorded in a System Log. [District Rules 2201 and 4622] Federally Enforceable Through Title V Permit
21. A person conducting testing of, or repairs to, a certified vapor recovery system shall be in compliance with District Rule 1177 (Gasoline Dispensing Facility Tester Certification). [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
22. A person performing installation of, or maintenance on, a certified Phase I or Phase II vapor recovery system shall be certified by the ICC for Vapor Recovery System Installation and Repair, or work under the direct and personal supervision of an individual physically present at the work site who is certified. The ICC certification shall be renewed every 24 months. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
23. Proof of the ICC certification and all other certifications required by the Executive Order and installation and operation manual shall be made available onsite. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
24. The permittee shall notify the District at least 7 days prior to each performance test. The test results shall be submitted to the District no later than 30 days after the completion of each test. [District Rule 4621] Federally Enforceable Through Title V Permit
25. The permittee shall maintain a copy of all test results. The test results shall be dated and shall contain the name, address, and telephone number of the company responsible for system installation and testing. [District Rule 4622] Federally Enforceable Through Title V Permit
26. The permittee shall maintain on the premises a log of any repairs made to the certified Phase I or Phase II vapor recovery system. The repair log shall include the following: 1) date and time of each repair; 2) the name and applicable certification numbers of the person(s) who performed the repair, and if applicable, the name, address and phone number of the person's employer; 3) description of service performed; 4) each component that was repaired, serviced, or removed; 5) each component that was installed as replacement, if applicable; and 6) receipts or other documents for parts used in the repair and, if applicable, work orders which shall include the name and signature of the person responsible for performing the repairs. [District Rule 4622] Federally Enforceable Through Title V Permit
27. The O&M manual shall be kept at the dispensing operation and made available to any person who operates, inspects, maintains, repairs, or tests the equipment at the operation as well as to District personnel upon request. [District Rule 4622] Federally Enforceable Through Title V Permit
28. The permittee shall maintain monthly and annual gasoline throughput records. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
29. All records required by this permit shall be retained on-site for a period of at least five years and shall be made available for District inspection upon request. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit

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