San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUG 2 5 2015

Mr. Martin Hein
Martin Hein Ranch Co - Premier Almonds #12
27210 Road 108
Visalia, CA 93277

Re: Notice of Final Action - Title V Permit
District Facility # S-5943
Project # S-1140615

Dear Mr. Hein:

The District has issued the Final Title V Permit for Martin Hein Ranch Co - Premier Almonds #12. The preliminary decision for this project was made on May 4, 2015. No comments were received subsequent to the District preliminary decision. Enclosed are the Final Title V Permit and public notice to be published approximately three days from the date of this letter.

The public notice for issuance of the Final Title V Permit will be published approximately three days from the date of this letter.

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

Sincerely,

Arnaud Marjollet
Director of Permit Services

Enclosures

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

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

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

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

www.valleyair.org www.healthyairliving.com

SAN JOAQUIN VALLEY
UNIFIED AIR POLLUTION CONTROL DISTRICT

MARTIN HEIN RANCH CO. – PREMIER ALMONDS 12

ENGINEERING EVALUATION
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TITLE V APPLICATION REVIEW

Project #: S-1140615
Deemed Complete: February 25, 2014

Engineer: Sandra Lowe-Leseth
Date: August 25, 2015

Facility Number: S-5943
Facility Name: Martin Hein Ranch Co. – Premier Almonds 12
Mailing Address: 27210 Road 108
Visalia, CA 93277

Contact Name: Martin Hein
Phone: (559) 685-0200

Responsible Official: Martin Hein
Title: Owner

I. PROPOSAL

Martin Hein Ranch Co. – Premier Almonds 12 is proposing that an initial Title V permit be issued for its existing agricultural production facility at 13812 Western Avenue in Wasco, CA. The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with those applicable requirements, and to provide the legal and factual basis for proposed permit conditions.

On May 4, 2015, the District issued public notice of its preliminary decision to issue the initial Title V permit for Martin Hein Ranch Co. – Premier Almonds 12. In accordance with District Rule 2520, copies of the proposed permit and evaluation were forwarded to the facility, US EPA, and the California Air Resources Board. Copies were also made available for public review. The notice of District's preliminary decision was published in The Bakersfield Californian (newspaper of general circulation in Kern County) on May 7, 2015. During the review period that followed the notice of preliminary decision, the District received no formal comments from EPA or from the public.

II. FACILITY LOCATION

Martin Hein Ranch Company – PA2 is located at 13812 Western Avenue in Wasco, in Kern County, CA.

III. EQUIPMENT LISTING

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

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

IV. GENERAL PERMIT TEMPLATE USAGE

The applicant has chosen to not use any model general permit templates.

V. SCOPE OF EPA AND PUBLIC REVIEW

The applicant has not requested to utilize any model general permit templates. Therefore, the proposed permit in its entirety is subject to EPA and public review.

VI. REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES

The applicant has not proposed to utilize any model general permit templates. All applicable requirements are explicitly addressed in the permit outside of the general permit templates.

VII. REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES

District Rule 1070, Inspections (Amended December 17, 1992)

District Rule 1081, Source Sampling (amended December 16, 1993)

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

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

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

District Rule 2020, Exemptions (amended December 18, 2014)

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

District Rule 2040, Applications (amended December 17, 1992)

District Rule 2070, Standards for Granting Applications (amended December 17, 1992)

District Rule 2080, Conditional Approval (amended December 17, 1992)

District Rule 2201, New and Modified Stationary Source Review (amended April 21, 2011)

District Rule 2410, Prevention of Significant Deterioration (adopted June 16, 2011)

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

District Rule 4101, Visible Emissions (amended February 17, 2005)

District Rule 4103, Open Burning (amended April 15, 2010)

District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)

District Rule 4550, Conservation Management Practices (adopted August 19, 2004)

District Rule 4601, Architectural Coatings (amended December 17, 2009)

District Rule 4701, Internal Combustion Engines – Phase 1 (amended August 21, 2003)

District Rule 4702, Internal Combustion Engines (amended November 14, 2013)

District Rule 4801 – Sulfur Compounds (amended December 17, 1992), Non SIP replacement for Kern County Rule 406)

District Rule 8011, General Requirements (amended August 19, 2004)

District Rule 8021, Construction, Demolition, Excavation, and Other Earthmoving Activities (amended August 19, 2004)

District Rule 8031, Bulk Materials (amended August 19, 2004)

District Rule 8041, Carryout and Trackout (amended August 19, 2004)

District Rule 8051, Open Areas (amended August 19, 2004)

District Rule 8061, Paved and Unpaved Roads (amended August 19, 2004)

District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas (amended September 16, 2004)

District Rule 8081, Agricultural Sources (amended September 16, 2004)

40 CFR Part 60 Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

40 CFR Part 61 Subpart M, National Emission Standard for Asbestos

40 CFR Part 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR Part 64 Compliance Assurance Monitoring (CAM)

40 CFR Part 82 Subpart B and F, Stratospheric Ozone

VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

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

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

District Rule 4102 – Nuisance

This rule prevents the discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property.

a. *S-5943-0-1: Facility-wide Requirements*

- Condition 43 of the facility-wide permit ensures compliance with this rule.

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) is California's broadest environmental law. CEQA helps to guide the Department during issuance of permits and approval of projects. CEQA applies to all discretionary projects proposed to be conducted or approved by a California public agency, including private projects requiring discretionary government approval.

a. *S-5943-0-1: Facility-Wide Requirements*

- Condition 45 of the requirements of the facility-wide permit is based on compliance with this requirement.

IX. COMPLIANCE

A. Requirements Addressed by Model General Permit Templates

The applicant proposes not to use any model general permit templates. Compliance with all federally applicable requirements will be addressed in the following section of this engineering evaluation.

B. Requirements Not Addressed by Model General Permit Templates

1. District Rule 1070 – Inspections

The purpose of this rule is to explain the District's authority in determining compliance with the requirements of these rules and regulations.

a. S-5943-0-1: Facility-wide Requirements

- Conditions 18 through 21 of the facility-wide permit ensure compliance with this rule.

2. District Rule 1081 – Source Sampling

The purpose of this rule is to ensure that any source operation that emits or may emit air contaminants provides adequate and safe facilities for use in sampling to determine compliance. This rule also specifies methods and procedures for source testing, sample collection, and compliance determination.

Section 3.1 requires that sampling port locations must be determined according to criteria in the California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing.

Section 3.2 requires that sampling platforms must be constructed according to specifications shown in the Air Resources Board publication entitled Supplement to Stationary Source Test Methods, Volume I, Appendix A, page 1-A-15.

Section 3.3 requires that in addition to the general industry safety orders of the State of California Title 14, Number 32776, Chapter 4, Subchapter 7, pertaining to ladders, all ladders accessing sampling platforms on any stack, chimney, or other structure will be caged and equipped with rest platforms at 20 foot intervals.

Section 4.0 requires that the owner of such a source operation, when requested by the APCO, shall provide records or other information, which will enable the APCO to determine when a representative sample can be taken. In addition, upon the request of the APCO and as directed by him, the owner of such a source operation shall collect, have collected, or allow the APCO to collect, a source sample.

Section 5.0 requires that the applicable test method, if not specified in the rule, shall be conducted in accordance with Title 40 CFR Subpart 60

Appendix A, except PM_{10} for compliance with Rule 2201 (New and Modified Stationary Source Review) requirements shall be conducted in accordance with Title 40 CFR Subpart 51, Appendix M, Method 201 or 201A. Where no test method exists in the preceding references for a source type, source sampling shall be conducted in accordance with CARB approved methods.

Section 6.1 requires that for the purpose of determining compliance with an applicable standard or numerical limitation, the arithmetic mean of three (3) test runs shall apply, unless two (2) of the three (3) results are above the applicable limit. If two (2) of three (3) runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit.

Section 6.2 requires that a scheduled source test may not be discontinued solely due to the failure of one or more runs to meet applicable standards.

Section 6.3 requires that In the event that a sample is accidentally lost or conditions occur in which one (1) of the three (3) runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sampling train, extreme meteorological conditions presenting a hazard to the sampling team, or other circumstances beyond the owner or operators control, upon the APCO's approval, compliance may be determined using the arithmetic mean of the other two (2) runs.

Section 7.1 requires that the District must be notified 30 days prior to any compliance source testing and the owner shall submit a source test plan for District approval 15 days prior to source sampling.

Section 7.2 requires that source sampling to determine the compliance status of an emissions source shall be witnessed or authorized by District personnel.

Section 7.3 requires that Source test reports must be submitted to the District within 60 days of completion of field-testing. Source tests must be submitted for all District authorized compliance source tests regardless of pass, fail or reschedule because of failure, status. A District authorized compliance source test shall not be discontinued solely due to the failure of one (1) or more runs to meet applicable standards.

Source testing requirements for the units at this site, if applicable, are addressed by the prohibitory rules. Applicable requirements from this Rule are addressed by the applicable prohibitory rules. Therefore, the requirements of this rule will not be further discussed.

a. S-5943-0-1: Facility-wide Requirements

- Conditions 18 through 21 of the facility-wide permit ensure compliance with this rule.

3. District Rule 1100 – Equipment Breakdown

This rule defines a breakdown condition and the procedures to follow if one occurs. The corrective action, the issuance of an emergency variance, and the reporting requirements are also specified. Sections 6.0 and 7.0 prescribe breakdown procedures and reporting requirements. District Rule 1100 has been submitted to the EPA to replace Kern County Rule 111 that is in the State Implementation Plan (SIP). District Rule 1100 is at least as stringent as the county SIP rule addressing breakdowns, as shown in following table.

Comparison of District Rule 1100 to Kern County Rule 111

REQUIREMENTS	District Rule 1100	Kern County Rule 111
A breakdown occurrence must be reported as soon as reasonably possible, but no later than 1 hour after detection.	✓	(allows 2 hrs.)
A variance must be obtained if the occurrence will last longer than a production run or 24 hours, whichever is shorter (96 hours for CEM systems).	✓	✓
A report must be submitted to the APCO within 10 days of the correction of the breakdown occurrence which includes: 1) A statement that the breakdown condition has been corrected, together with the date of correction and proof of compliance.	✓	✓
2) A specific statement of the reason(s) or cause(s) for the occurrence sufficient to enable the APCO to determine whether the occurrence was a breakdown condition.	✓	✓
3) A description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future.	✓	✓
4.) An estimate of the emissions caused by the occurrence.	✓	✓
5) Pictures of the equipment or controls which failed if available.	✓	✓

a. S-5943-0-1: Facility-wide Requirements

- Conditions 1, 2, and 11 of the facility-wide permit ensure compliance with this rule.

4. District Rule 1160 – Emission Statements

The purpose of this rule is to provide the District with an accurate accounting of emissions from significant sources with which the District and California EPA Air Resources Board (ARB) can compile an accurate inventory. Section 5.0 requires the owner or operator of any stationary source to provide the District with a written emissions statement showing actual emissions of reactive organic gases (ROGs) and nitrogen oxides (NOx) from that source. The District waives this requirement for sources emitting less than 25 tons per year of these pollutants if the District provides the Air Resources Board (ARB) with an emissions inventory of sources emitting greater than 10 tons per year of NOx or ROGs based on the use of emission factors acceptable to the ARB.

a. *S-5943-0-1: Facility-wide Requirements*

- Condition 3 of the facility-wide permit ensures compliance with this rule.

5. District Rule 2010 – Permits Required

District Rule 2010 Sections 3.0 and 4.0 require any person building, modifying or replacing any operation that may cause the issuance of air contaminants to apply for an Authority to Construct (ATC) from the District in advance. The ATC will remain in effect until the Permit to Operate (PTO) is granted.

a. *S-5943-0-1: Facility-wide Requirements*

- Condition 4 of the facility-wide permit ensures compliance with this rule.

6. District Rule 2020 – Exemptions

District Rule 2020 lists equipment which is specifically exempt from obtaining permits and specifies recordkeeping requirements to verify such exemptions.

District Rule 2020 was last amended on December 18, 2014. The primary purpose of the amendments was to: clarify alignment of District Rule 2020 with the California Air Resources Board's (ARB) Portable Equipment Registration Program (PERP); to exempt certain oil field tanks with insignificant emissions; and to update standardized testing provisions. Prior to the December 18, 2014 amendments, the Rule was amended on August 18, 2011. The primary purpose of the amendment was to correct a

deficiency noted by EPA regarding referencing the California Health and Safety Code (CH&SC) as part of the exemption for agricultural sources. On May 11, 2010, EPA finalized a limited approval and limited disapproval of District Rule 2020 because the permitting exemption for agricultural sources referenced the CH&SC where the State law has not been submitted for inclusion in the SIP. On August 18, 2011, the District amended Rule 2020 to address this deficiency by replacing the reference to the CH&SC with clear wording explaining that the exemption applied to agricultural sources with emissions less than one-half of the major source thresholds and that are not required to obtain Title V permits pursuant to District Rule 2520. The amendment also added a definition for agricultural sources and included an exemption for wind machines, which are only used a few nights a year to protect certain crops (e.g. citrus) from frost when temperatures are predicted to drop below 28°F and have been treated as insignificant sources of emissions. On December 6, 2011, EPA proposed to approve the August 18, 2011 version of District Rule 2020 into the SIP (76 FR 76112).

Because the amendments to District Rule 2020 do not affect the requirements for the permit units at this site, the changes will not be addressed further in this evaluation.

a. S-5943-0-1: Facility-wide Requirements

- Condition 4 of the facility-wide permit ensures compliance with this rule.

7. District Rule 2031 – Transfer of Permits

District Rule 2031 prohibits the transfer of Permits to Operate or Authorities to Construct from one location to another, from one piece of equipment to another, or from one person to another unless a new application is filed with and approved by the District.

a. S-5943-0-1: Facility-wide Requirements

- Condition 6 of the facility-wide permit ensures compliance with this rule.

8. District Rule 2040 – Applications

The purpose of this rule is to explain the procedures for filing, denying, and appealing the denial of applications for an Authority to Construct or a Permit to Operate.

a. S-5943-0-1: Facility-wide Requirements

- Condition 7 of the facility-wide permit ensures compliance with this rule.

9. District Rule 2070 – Standards for Granting Applications

District Rule 2070 requires sources to be constructed and operated as specified in the Authority to Construct and the Permit to Operate and requires that source comply with the applicable requirements of District Rule 2201 (New and Modified Stationary Source Review Rule), District Rule 4001 (New Source Performance Standards), and District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants). District Rule 2070 also explains the standards by which an APCO may deny an application for an Authority to Construct or Permit to Operate.

a. S-5943-0-1: Facility-wide Requirements

- Condition 5 of the facility-wide permit ensures compliance with this rule.

10. District Rule 2080 – Conditional Approval

The purpose of this rule is to grant authority to the APCO to issue or revise specific written conditions on an Authority to Construct or a Permit to Operate to ensure compliance with air contaminant emission standards or limitations.

a. S-5943-0-1: Facility-wide Requirements

- Condition 5 of the facility-wide permit ensures compliance with this rule.

11. District Rule 2201 - New and Modified Stationary Source Review

District Rule 2201 applies to new and modified sources that require a District permit. Previously, agricultural operations in California were exempt from District permitting requirements. Pursuant to California Senate Bill (SB) 700 and effective January 1, 2004, agricultural operations with emissions exceeding ½ the major source threshold for any affected pollutant became subject to District permitting requirements. The permit units at this agricultural production facility did not require a permit at the time of installation; therefore, pursuant to Section 9.0 of District Rule 2020 – Exemptions, these units were not subject to the requirements of District Rule

2201 during the initial permitting action and will not be subject to District Rule 2201 until modified.

In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the Permit to Operate (PTO) were addressed to define how the PTO conditions should be incorporated into the Title V permit.

a. *S-5943-1-1, '-2-1, '-3-1, '-4-1, '-5-1, '-6-1, '-7-1, and '-8-1: Natural gas-fired engines powering agricultural irrigation pumps*

- Conditions 3, 6 through 10, and 25 and of the requirements for these permit units ensure compliance with this rule. The following table outlines Rule 2201 conditions.

Previous Permit Condition No.	Description	Permit Condition No.	Comments
9	This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702]	3	District Rule 2201 was added to the reference.
12	This IC engine shall be fired exclusively on Public Utility Commission (PUC) regulated natural gas. [District Rules 2201, 4702, and 4801]	6	District Rule 4702 was added to the reference
24	NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702]	7	District Rule 2201 was added to the reference.
25	PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]	8	---
26	Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rules 2201 and 4702]	9	District Rule 2201 was added to the reference.
13	Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]	10	---
28	The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]	25	---

12. District Rule 2410 – Prevention of Significant Deterioration

The prevention of significant deterioration (PSD) program is a construction permitting program for new major stationary sources and major modifications to existing major stationary sources located in areas

classified as attainment or in areas that are unclassifiable for any criteria air pollutant. The provisions of this rule apply to any source and the owner or operator of any source subject to any requirement under Title 40 Code of Federal Regulations (40 CFR) Part 52.21 as incorporated into this rule.

There are no PSD requirements for this source. Therefore, the facility is not subject to this rule and no further discussion is required.

13. District Rule 2520 – Federally Mandated Operating Permits

The purpose of this rule is to provide for the following: An administrative mechanism for issuing operating permits for new and modified sources of air contaminants in accordance with requirements of 40 CFR Part 70. An administrative mechanism for issuing renewed operating permits for sources of air contaminants in accordance with requirements of 40 CFR Part 70; An administrative mechanism for revising, reopening, revoking, and terminating operating permits for sources of air contaminants in accordance with requirements of 40 CFR Part 70; An administrative mechanism for incorporating requirements authorized by preconstruction permits issued under District Rule 2201 (New and Modified Stationary Source Review) in a Part 70 permit as administrative amendments, provided that such permits meet procedural requirements substantially equivalent to the requirements of 40 CFR 70.7 and 70.8, and compliance requirements substantially equivalent to those contained in 40 CFR 70.6; and the applicable federal and local requirements to appear on a single permit.

Section 5.2 requires permittees submit applications for Title V permit renewal at least six months prior to permit expiration.

The applicant is not in compliance with District Rule 4702 and 40 CFR 63 Subpart ZZZZ as outlined in the Permit to Operate conditions, and pursuant to Section 7.1.9, a compliance plan and schedule will be established. The plan contains a statement that the source will meet the requirements on a timely basis and, if expressly required by the applicable requirement, a detailed schedule.

a. *S-5943-1-1, '-2-1, '-3-1, '-4-1, '-5-1, '-6-1, '-7-1, and '-8-1: Natural gas-fired engines powering agricultural irrigation pumps*

   These engines have been retrofitted with an emission control system; however the owner/operator is proposing to replace the currently-installed emission control system (Lambda Management System) with a different one (Altronic Control System). The original compliance date of July 1, 2015 is no longer valid due to the proposed change in emission control systems. In order to ensure compliance with the

requirements of District Rule 4702 and 40 CFR 63, Subpart ZZZZ, the permittee shall demonstrate full compliance with the requirements of the Authority to Construct (ATC) which authorizes the installation of the Altronic Control System within six months of the date of issuance of the finalized Title V permit for this site.

- Condition 1 of the proposed requirements for these permit units ensures compliance with this rule.

Section 9.3.2 of District Rule 2520 requires that each permit contain periodic monitoring or testing to ensure compliance with federally enforceable emission limits or other requirements if none is associated with the applicable requirement. Recordkeeping may be sufficient to meet the requirements of this section. Monitoring and recordkeeping requirements have been incorporated into the permit as appropriate.

Section 9.4 contains requirements to incorporate all applicable recordkeeping requirements into the Title V permit. This section also specifies records of any required monitoring and support data be kept for a period of five years.

Section 9.5 of District Rule 2520 requires the submittal of monitoring reports at least every six months. Prompt reporting of deviations from permitting requirements, including those attributable to upset conditions is also required. The responsible official must certify all required reports.

Section 9.7 of District Rule 2520 states that the Title V permit must also contain a severability clause in case of a court challenge.

Section 9.8 of District Rule 2520 contains requirements for provisions in the Title V permit stating the following: 1) the permittee must comply with all permit conditions. Noncompliance with permit conditions constitutes a violation of the Clean Air Act and District Rules and Regulations, and is grounds for enforcement action; 2) it should not be a defense 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; 3) the permit may be revoked, modified, reissued, or reopened for cause; 4) the Title V permit does not convey any property rights of any sort or reflect any exclusive privilege, and 5) the permittee will furnish the District with any requested information to determine compliance with the conditions of the Title V permit.

Section 9.9 of District Rule 2520 requires the permit specify that the permittee pay annual permit fees and applicable fees from District Rules 3010, 3030, 3050, 3080, 3090, 3110, and 3120.

Section 9.13.1 of District Rule 2520 requires any report or document submitted under a permit requirement or a request for information by the District or EPA contain a certification by a responsible official as to truth, accuracy, and completeness.

Section 9.13.2 of District Rule 2520 requires that, upon presentation of credentials and other documents that may be required by law, the permittee shall allow, at reasonable times, an authorized District representative to:

1.) Enter the permittee's premises where a permitted source is located;
2.) Have access to and copy records that must be kept under the conditions of the permit;
3.) Inspect any facilities, equipment, practices or operations regulated or required under the permit; and
4.) Sample or monitor substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

Section 9.16 of District Rule 2520 requires that the permittee submit certification of compliance with the terms and standards of Title V permits to the EPA and the District annually (or more frequently as required by the applicable requirement or the District).

Section 10.0 of District Rule 2520 requires any application form, report, or compliance certification submitted pursuant to these regulations shall contain certification of truth, accuracy, and completeness by a responsible official.

a. S-5943-0-1: Facility-wide Requirements

- Conditions 5, 8 through 21, 26, 38 through 42, and 46 of the facility-wide permit ensure compliance with this rule.

Greenhouse Gas Requirements

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

14. District Rule 4101 – Visible Emissions

The purpose of this rule is to prohibit the emissions of visible air contaminants to the atmosphere. Section 5.0 prohibits the discharge of

any air contaminant for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart; or is of such opacity as to obscure an observer's view to a degree equal to or greater than the smoke described in Section 5.1 of Rule 4101.

a. *S-5943-0-1: Facility-wide Requirements*

- Condition 22 of the facility-wide permit ensures compliance with this rule.

15. District Rule 4103 - Open Burning

The purpose of this rule is to permit, regulate, and coordinate the use of open burning while minimizing smoke impacts on the public.

This rule applies to open burning conducted in the San Joaquin Valley Air Basin, with the exception of prescribed burning and hazard reduction burning as defined in Rule 4106 (Prescribed Burning and Hazard Reduction Burning).

Pursuant to Section 4.3, the following activities are exempt from the no-burn day restrictions, subject to APCO authorization and permit requirements.

Pursuant to Section 5.1.4, the Permit-to-Operate application or Authority-to-Construct application shall include the following information, which is in addition to the facility emission mitigation plan:

1. The burning of empty sacks which contained pesticides or other toxic substances, provided that the sacks are within the definition of agricultural burning
2. The burning of paper raisin trays
3. Other agricultural burning, if the denial of such burning would threaten imminent and substantial economic loss, and which is conducted pursuant to the following provisions:
   a. The APCO may only authorize such burning when downwind metropolitan areas are forecast by the District to achieve the ambient air quality standards and/or a fire agency has not declared a no-burn day due to safety issues.
   b. The District shall limit the amount of acreage that can be burned on any one no-burn day in any one county to 200 acres.
   c. The granting of an exemption does not exempt the applicant from any other District or fire control regulations.

d. Within 15 days of receiving an exemption, the applicant shall return a signed application form that provides the reasons for requesting the exemption and shall pay the required District fee.

Section 5.1 requires that, except as otherwise provided in this rule, no person shall set, permit, or use an open outdoor fire for the purpose of disposal or burning of petroleum wastes; demolition or construction debris; residential rubbish; garbage or vegetation; tires; tar; trees; wood waste; or other combustible or flammable solid, liquid or gaseous waste; or for metal salvage or burning of motor vehicle bodies.

Section 5.2 stipulates that the APCO allocate burning based on the predicted meteorological conditions and whether the total tonnage to be emitted would allow the volume of smoke and other contaminants to cause a public nuisance, impact smoke sensitive areas, or create or contribute to an exceedance of an ambient air quality standard.

Section 5.3 stipulates that the APCO shall restrict the time of day when burns are ignited and conducted, as necessary.

Section 5.5.1 stipulates that, except for crops covered by Section 5.5.2, no permit shall be issued for the burning of the following categories of agricultural waste: field crops, prunings, weed abatement, except for the categories covered by Section 5.5.3, orchard removals, vineyard removal materials, surface harvested prunings, and other materials.

Pursuant to Section 5.5.2, the District may postpone the prohibitions in Section 5.5.1 and may issue permits for the burning of any agricultural waste, if all of the following criteria are met:

1. The Board determines that there is no economically feasible alternative means of eliminating the waste.
2. The Board determines that there is no long-term federal or state funding commitment for the continued operation of biomass facilities in the San Joaquin Valley or development of alternatives to burning.
3. The Board determines that the continued issuance of permits for that specific category or crop will not cause, or substantially contribute to, a violation of an applicable federal ambient air quality standard.
4. The California Air Resources Board concurs with the Board's determinations pursuant to this section.

Section 6.1 - Open Burn Permits, stipulates that no open burning shall be conducted or allowed unless the applicant provides all required information and obtains the appropriate permits from the APCO and other

agencies with jurisdiction. Only material clearly described and quantified in the permit may be burned. Burning shall be conducted in accordance with the requirements of the permit and is only allowed on days specified by the District.

According to the information supplied by the applicant, this agricultural facility produces nut crops. The District has not determined that these crops qualify for the postponement of prohibition of open burning provided in Section 5.5.2. Therefore, burning of the agriculture residues produced at this site is prohibited. The information provided in the applicant's Conservation Management Practice (CMP) Plan for compliance with District Rule 4550 states that no burning of agricultural waste occurs at this site.

The District's burn permit program will continue to ensure ongoing compliance with the requirements of this rule.

16. District Rule 4201 – Particulate Matter Concentration

The purpose of this rule is to protect the ambient air quality by establishing a particulate matter emission standard. Section 3.1 requires emissions to be at or below 0.1 grains of particulate matter per dry standard cubic foot of exhaust gas.

The natural gas-fired IC engines permitted as units S-5943-1 through '-8 each have permitted PM emissions no greater than 0.075 g/bhp-hr. The following calculation demonstrates that the particulate matter emissions from these units will not exceed the rule limit of 0.1 grain per cubic foot of gas at dry standard conditions:

$$\left(\frac{0.075\,\text{g - PM}}{\text{bhp - hr}}\right)X\left(\frac{1\,\text{bhp - hr}}{2{,}542.5\,\text{Btu}}\right)X\left(\frac{10^6\,Btu}{8{,}578\,\text{dscf}}\right)X\left(\frac{0.30\,\text{Btu (out)}}{1\,\text{Btu (in)}}\right)X\left(\frac{15.43\,\text{gr}}{1\,\text{g}}\right)=0.016\frac{grain}{dscf}$$

Where:

- 0.075 g-PM/bhp-hr: PM Emission Factor (includes both filterable and condensable emissions from AP-42 (7/00), Table 3.2.1)
- 2,542.5 Btu/bhp-hr: conversion factor for bhp-hr to Btu
- 8,578 dscf/10^6 Btu: Natural Gas F Factor corrected to 60 °F (40 CFR 60, Appendix A-7, Table 19-2)
- 0.30: Typical thermal efficiency of engines
- 15.43 gr/g: Conversion factor for grams to grains

Since 0.016 gr/dscf is less than 0.1 gr/dscf, the natural gas-fired IC engines at this site are expected to comply with the emission limit of this rule.

a. S-5943-0-1: Facility-Wide Requirements

- Condition 44 of the requirements of the facility-wide permit ensures compliance with this rule.

17. District Rule 4550 - Conservation Management Practices

This rule applies to agricultural operation sites located within the San Joaquin Valley Air Basin. The purpose of this rule is to limit fugitive dust emissions from agricultural operation sites.

Pursuant to Section 5.1, effective on and after July 1, 2004, an owner/operator shall implement the applicable CMPs selected pursuant to Section 6.2 for each agricultural operation site.

Pursuant to Section 5.2, an owner/operator shall prepare and submit a CMP application for each agricultural operation site, pursuant to Section 6.0, to the APCO for approval. The facility has submitted a CMP application for each of their agricultural site, and is therefore in compliance.

Pursuant to Section 5.3, except as provided by Section 5.4, an owner/operator shall implement the CMPs as contained in the CMP Plan approved pursuant to Section 6.0 for each agricultural operation site no later than ten (10) days after notification by the APCO of the approval of the CMP Application.

Pursuant to Section 6.2, an owner/operator shall select one CMP from the CMP list for each of the applicable CMP categories.

Pursuant to Section 6.2.3, an owner/operator may select a substitute CMP from another CMP category when no feasible CMP can be identified from one category. This provision does not apply for the unpaved road, and unpaved vehicle/equipment traffic area CMP categories.

Pursuant to Section 6.3, an owner/operator shall submit a CMP Application, prepared pursuant to Section 6.1, to the APCO: 1) within 90 days for an agricultural operation site or an agricultural parcel that is acquired or becomes subject to the provisions of Section 5.0 after October 31, 2004, 2) within 60 days of any operational, administrative, or other modification that necessitates the revision of the CMP Plan.

Pursuant to Section 6.5.1, an owner/operator subject to Section 5.0 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.

a. *S-4603-0-1: Facility-Wide Requirements*

- Condition 36 of the facility-wide permit ensures compliance with this rule.

18. District Rule 4601 – Architectural Coatings

This rule limits the emissions of VOCs from architectural coatings. It requires limiting the application of any architectural coating to no more than what is listed in the Table of Standards (Section 5.0). This rule further specifies labeling requirements, coatings thinning recommendations and storage requirements.

a. *S-4603-0-1: Facility-Wide Requirements*

- Conditions 23, 24, and 25 of the facility-wide permit ensure compliance with this rule.

19. District Rule 4701 – Internal Combustion Engines–Phase 1

The purpose of this rule is to limit the emissions of nitrogen oxides (NO_X), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines. Except as provided in Section 4.0, the provisions of this rule apply to any internal combustion engine, rated greater than 50 bhp that requires a Permit to Operate (PTO).

Pursuant to Section 4.1, the provisions of this rule do not apply to engines in agricultural operations in the growing of crops or raising of fowl or animals. The IC engines at this agricultural production site are used for growing crops and are therefore exempt from the provisions of this rule.

a. *S-5943-1-1, '-2-1, '-3-1, '-4-1, '-5-1, '-6-1, '-7-1, and '-8-1: Natural gas-fired engines powering agricultural irrigation pumps*

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

20. District Rule 4702 – Internal Combustion Engines

District Rule 4702 as amended August 18, 2011 has been submitted to the EPA to replace District Rule 4702 as amended January 18, 2007, which is contained in the SIP. The August 18, 2011 amendments to Rule 4702 are more stringent that the version of Rule 4702 (1/18/07) currently in the SIP. The amendments to Rule 4702 include the following additional requirements and changes:

1) Addition of requirements prohibiting the sale of non-agricultural IC engines rated 25 bhp to 50 bhp unless the engines meet the applicable requirements of Code of Federal Regulation (CFR) 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 40 CFR 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines for the year in which the ownership of the engine changed.
2) Lowering the NO_X emission limit to 11 ppmv @ 15% O_2 for certain categories of full-time non-agricultural IC engines
3) Allowing of the alternative option for operators of non-agricultural IC engines to continue complying with the emission limits in the 1/18/07 version of Rule 4702 by paying annual emission reduction fees in lieu of complying with the lower NO_X emission limits in the 8/18/11 rule amendments. The annual emission reduction fees would be used to other projects that would result in equivalent reductions.
4) Addition of new categories for limited-use engines and lean burn engines used for gas compression; these engines would generally remain subject to the emission limits in that were in the 1/18/07 version of Rule 4702.
5) Addition of requirements to limit SO_X emissions by limiting the sulfur content of fuels permitted for use in non-agricultural IC engines
6) No changes to emission limits or compliance dates for agricultural IC engines and compression-ignited IC engines except for clarification the requirement that certified Tier 1 and Tier 2 engines must be replaced with a Tier 4 no later than 6/1/2018. This is clarifies the latest compliance date since certified compression-ignited engines were required to comply by 1/1/2015 or 12 years after the installation date; however, the compliance date is based on the engine that was in place on or before June 1, 2006.

As mentioned above and summarized in the tables below, August 18, 2011 amendments to District Rule 4702 did not result in any significant changes to the requirements for agricultural IC engines or spark-ignited IC

engines compared to the January 18, 2007 version of District Rule 4702 that is contained in the SIP.

The IC engines at this agricultural production site are spark-ignited IC engines that are used for growing crops. The requirements for these engines are not affected by the latest amendments to District Rule 4702; therefore, further discussion of the August 18, 2011 amendments to District Rule 4702 is not required.

District Rule 4702 was further amended on November 14, 2013 and that version has been submitted to the EPA to replace District Rule 4702, amended January 18, 2007, which is contained in the SIP. The 2013 amendments include the 2011 amendment provisions; therefore, as discussed above, they are more stringent than the 2007 version currently in the SIP.

The 2013 amendments to Rule 4702 made administrative updates to rule language to clarify existing rule requirements by adding Federal Register citations to Section 3.37, deleting "stationary" from Section 5.2, deleting "the" from Section 5.10.2, adding "and" to Section 7.5.2.1, adding "source" to Section 7.6.2.2, and by adding a line item to Table 2 to clarify the NOx limits for lean-burn waste gas fired engines used exclusively in non-Agricultural Operations. This amendment did not change existing emissions limits or affect air quality.

5.2.3 Spark-Ignited Engines Used Exclusively in Agricultural Operations (AO):

5.2.3.1 The operator of a spark-ignited internal combustion engine rated at greater than 50 bhp that is used exclusively in AO shall not operate it in such a manner that results in emissions exceeding the limits in Table 3 for the appropriate engine type on an engine-by-engine basis.

5.2.3.2 In lieu of complying with the NOx, CO, and VOC limits of Table 3 on an engine-by-engine basis, an operator may elect to implement an alternative emission control plan pursuant to Section 8.0.

5.2.3.3 An operator of an AO spark-ignited engine that is subject to the applicable requirements of Table 3 shall not replace such engine with an engine that emits more emissions of NOx, VOC, and CO, on a ppmv basis, (corrected to 15% oxygen on a dry basis) than the engine being replaced.

Requirements for Spark-Ignited Agricultural IC Engines in District Rule 4702 as amended 1/18/07 and 8/18/11 and 11/14/13			
REQUIREMENTS		District Rule 4702 (8/18/11)	SIP Rule 4702 (1/18/07)
1. Rich-Burn Engine Used Exclusively in Agricultural Operations			
1/18/07 version: Comply by 1/1/2009 or 1/1/2010 if agreement to electrify; *8/18/11 version:* Compliance dates removed since the dates have passed	90 ppmv NO_X @ 15 % O_2 or 80% reduction	✓	✓
	2,000 ppmv CO	✓	✓
	250 ppmv VOC	✓	✓

The owner/operator has elected to comply with the requirements of Section 5.2.3.1 and each natural gas-fired IC engine at this site is equipped with an emissions control system which is capable of achieving compliance with the emission limits/standards from Table 3 of this rule. Permit units '-1 through '-8 are each authorized to install an emission control system capable of achieving compliance with these emission standards under the Authority to Construct permits issued with project S-1083354.

In order to ensure compliance with the requirements of District Rule 4702, the owner/operator of this site will be required to demonstrate compliance with the Authority to Construct (ATC) permits. These engines have been retrofitted with an emission control system; however the owner/operator is proposing to replace the currently-installed emission control system (Lambda Management System) with a different one (Altronic Control System). The original compliance date of July 1, 2015 is no longer valid due to the proposed change in emission control systems. In order to ensure compliance with the requirements of District Rule 4702 and 40 CFR 63, Subpart ZZZZ, the permittee shall demonstrate full compliance with the requirements of the Authority to Construct (ATC) which authorizes the installation of the Altronic Control System within six months of the date of issuance of the finalized Title V permit for this site.

Section 5.3 outlines requirements for continuous emissions monitoring systems (CEMS). The engines at this site are not equipped with a CEMS; therefore, the requirements of this section are not applicable to the engines in this project.

Section 5.4 and Section 5.5 outline requirements for complying with the percent emission reductions, if used to comply with the NOx emission limits of Section 5.2. The facility has not proposed to use the percent

emission reduction to comply with the NOx limits in Section 5.2 for the engines at this site; therefore, the requirements of Section 5.4 and Section 5.5 are not applicable to the engines at this site.

Section 5.6 outlines the requirements for the payment of an annual fee in lieu of complying with a NOx emission limit. The applicant has proposed to comply with a NOx emission limit and will not be paying an annual fee; therefore, the requirements of this section are not applicable to the engines at this site.

Section 5.7 outlines the requirements for the control of sulfur oxide (SOx) emissions and requires operators of non-AO spark-ignited and non-AO compression-ignited engines to comply with the Section 5.7.1 through Section 5.7.6. The engines at this site are AO engines; therefore, the requirements of this section are not applicable to the engines at this site.

Section 5.8 outlines the monitoring requirements for non-AO spark-ignited engines and engines in an AECP (Section 8.0). The engines at this site are AO spark-ignited engines and are not in an AECP; therefore, the requirements of this section are not applicable to the engines at this site.
5.9 Monitoring Requirements:

5.9.1 The operator of any of the following engines shall comply with the requirements specified in Section 5.9.2 through Section 5.9.5 below:

- 5.9.1.1 An AO spark-ignited engine subject to the requirements of Section 5.2;
- 5.9.1.2 A compression-ignited engine subject to the requirements of Section 5.2; or
- 5.9.1.3 An engine subject to Section 4.2.

The engines are each AO spark-ignited engines subject to the requirements of Section 5.2 and are therefore subject to the requirements of Section 5.9.2 through 5.9.5

5.9.2 Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.

5.9.3 Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.

5.9.4 Install and operate a nonresettable elapsed time meter.

- 5.9.4.1 In lieu of installing a nonresettable elapsed time meter, the operator may use an alternative device, method, or

technique, in determining operating time provided that the alternative is approved by the APCO and EPA and is allowed by a Permit-to- Operate or Permit-Exempt Equipment Registration condition.

5.9.4.2 The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions.

Section 6.2 requires the operator of an engine subject to the requirements of Section 5.2 of this rule maintain an engine operating log to demonstrate compliance with this rule. The engine operating log shall include, on a monthly basis, the following information:

6.2.1.1 Total hours of operation,
6.2.1.2 Type of fuel used,
6.2.1.3 Maintenance or modifications performed,
6.2.1.4 Monitoring data,
6.2.1.5 Compliance source test results, and
6.2.1.6 Any other information necessary to demonstrate compliance with this rule.

a. *S-5943-1-1, '-2-1, '3-1, '-4-1, '-5-1, '-6-1, '-7-1, and '-8-1: Natural gas-fired engines powering agricultural irrigation pumps*

These engines have been retrofitted with an emission control system; however the owner/operator is proposing to replace the currently-installed emission control system (Lambda Management System) with a different one (Altronic Control System). The original compliance date of July 1, 2015 is no longer valid due to the proposed change in emission control systems. In order to ensure compliance with the requirements of District Rule 4702 and 40 CFR 63, Subpart ZZZZ, the permittee shall demonstrate full compliance with the requirements of the Authority to Construct (ATC) which authorizes the installation of the Altronic Control System within six months of the date of issuance of the finalized Title V permit for this site.

- Conditions 1 through 7, 9, 11 through 24, 26, and 27 of the proposed requirements for these permit units ensure compliance with this rule.

21. District Rule 4801 – Sulfur Compounds

This rule limits the emissions of sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: two-tenths (0.2) percent by volume calculated as sulfur

dioxide (SO2), on a dry basis averaged over 15 consecutive minutes.

The rule has been submitted to the EPA to replace Kern County Rule 407 which is contained in the SIP. District Rule 4801 is as stringent as Tulare County Rule 407, as shown on table on the following page.

Comparison of District Rule 4801 to Kern County Rule 407

REQUIREMENTS	District Rule 4801	Kern County Rule 407
A person shall not discharge into the atmosphere sulfur compounds exceeding in concentration at the point of discharge 0.2 percent by volume calculated as sulfur dioxide on a dry basis averaged over 15 consecutive minutes.	✓	✓
EPA Method 8 and ARB Method 1-100 shall be used to determine such emissions.	✓	---

Using the ideal gas equation, the sulfur compound emissions are calculated as follows:

Volume SO_2 = (n x R x T) ÷ P
n = moles SO_2
T (standard temperature) = 60 °F or 520 °R

R (universal gas constant) = $\frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot {}^\circ\text{R}}$

2.85 $\frac{lb-S}{MMscf-gas} \times \frac{1\,MMscf-gas}{1{,}000\,MMBtu} \times \frac{1\,MMBtu}{8{,}578\,scf} \times \frac{1\,lb-mol}{64\,lb-S} \times \frac{10.73\,psi-ft^3}{lb-mol-{}^\circ R} \times \frac{520^\circ R}{14.7\,psi} \times 1{,}000{,}000 =$ 1.97 ppmv

Since 1.97 ppmv is less than 2,000 ppmv, all of the engines are expected to comply with Rule 4801.

a. S-5943-1-1, '-2-1, '-3-1, '-4-1, '-5-1, '-6-1, '-7-1, and '-8-1: Natural gas-fired engines powering agricultural irrigation pumps

- Condition 6 of the proposed requirements for these permit units ensures compliance with this rule.

22. District Rule 8011 – General Requirements

The purpose of Regulation VIII (Fugitive PM_{10} Prohibitions) is to reduce ambient concentrations of fine particulate matter (PM_{10}) by requiring actions to prevent, reduce, or mitigate anthropogenic fugitive dust

emissions. The Rules contained in this Regulation have been developed pursuant to United States Environmental Protection Agency guidance for Serious PM_{10} Nonattainment Areas. The rules are applicable to specified anthropogenic fugitive dust sources. Fugitive dust contains PM_{10} and particles larger than PM_{10}. Controlling fugitive dust missions when visible emissions are detected will not prevent all PM_{10} emissions, but will substantially reduce PM_{10} emissions.

The provisions of this rule are applicable to specified outdoor fugitive dust sources. The definitions, exemptions, requirements, administrative requirements, recordkeeping requirements, and test methods set forth in this rule are applicable to all Rules under Regulation VIII (Fugitive PM_{10} Prohibitions) of the Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District.

a. S-5943-0-1: Facility-Wide Requirements

- Conditions 29 through 35 of the requirements of the facility-wide permit ensure compliance with this rule.

23. District Rule 8021 – Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities

The purpose of this rule is to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities.

This rule applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads to and from the site. This rule also applies to the construction of new landfill disposal sites or modification to existing landfill disposal sites prior to commencement of landfilling activities.

Section 5.0 requires that no person shall perform any construction, demolition, excavation, extraction, or other earthmoving activities unless the appropriate requirements in sections 5.1 and 5.2 are sufficiently implemented to limit Visible Dust Emissions (VDE) to 20% opacity or less. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

a. S-5943-0-1: Facility-Wide Requirements

- Condition 29 of the requirements of the facility-wide permit ensures compliance with this rule.

24. District Rule 8031 – Bulk Materials

The purpose of this rule is to limit fugitive dust emissions from the outdoor handling, storage, and transport of bulk materials. This rule applies to the outdoor handling, storage, and transport of any bulk material.

Section 5.0 requires that no person shall perform any outdoor handling, storage, and transport of bulk materials unless the appropriate requirements in Table 8031-1 of this rule are sufficiently implemented to limit Visible Dust Emissions (VDE) to 20% opacity or less or to comply with the conditions for a stabilized surface as defined in Rule 8011. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

Section 4.5 exempts agricultural sources subject to, or specifically exempt from, the requirements of Rule 8081 (Agricultural Sources) from the requirements of this rule. Section 3.1 of District Rule 8011 defines an agricultural source as "any activity or portion of land associated with the commercial growing of crops or the raising of fowl or animals." Since this facility is an agricultural source subject to the requirements of Rule 8081 (Agricultural Sources), it is exempt from the requirements of this rule.

a. S-5943-0-1: Facility-Wide Requirements

- Condition 30 of the requirements of the facility-wide permit ensures compliance with this rule.

25. District Rule 8041 – Carryout and Trackout

The purpose of this rule is to limit fugitive dust emissions from carryout and trackout. This rule applies to all sites that are subject to Rules 8021 (Construction, Demolition, Excavation, Extraction, and other Earthmoving Activities), 8031 (Bulk Materials), and 8071 (Unpaved Vehicle and Equipment Traffic Areas) where carryout or trackout has occurred or may occur.

Section 5.0 requires that the owner or operator shall sufficiently prevent or cleanup carryout and trackout as specified in sections 5.1 through 5.8. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII. The use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from paved public roads does not exempt an owner or operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.

Section 4.1 exempts carryout and trackout caused by an Agricultural Source from the requirements of this rule. Section 3.1 of District Rule 8011 defines an agricultural source as "any activity or portion of land associated with the commercial growing of crops or the raising of fowl or animals." Since this facility is an agricultural source, carryout and trackout from this facility is exempt from the requirements of this rule.

a. S-5943-0-1: Facility-Wide Requirements

- Condition 31 of the requirements of the facility-wide permit ensures compliance with this rule.

26. District Rule 8051 – Open Areas

The purpose of this rule is to limit fugitive dust emissions from open areas. This rule applies to any open area having 3.0 acres or more of disturbed surface area that has remained undeveloped, unoccupied, unused, or vacant for more than seven days.

Section 5.0 requires that whenever open areas are disturbed or vehicles are used in open areas, the owner or operator shall implement one or more of the control measures indicated in Table 8051-1 to comply with the conditions of a stabilized surface at all times and to limit Visible Dust Emissions (VDE) to 20% opacity. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

a. S-5943-0-1: Facility-Wide Requirements

- Condition 32 of the requirements of the facility-wide permit ensures compliance with this rule.

27. District Rule 8061 – Paved and Unpaved Roads

The purpose of this rule is to limit fugitive dust emissions from paved and unpaved roads by implementing control measures and design criteria. This rule applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.

Section 4.3 exempts agricultural sources subject to, or specifically exempt from, the requirements of Rule 8081 (Agricultural Sources) from the requirements of this rule. Section 3.1 of District Rule 8011 defines an agricultural source as "any activity or portion of land associated with the commercial growing of crops or the raising of fowl or animals." Since this

facility is an agricultural source subject to the requirements of Rule 8081 (Agricultural Sources), it is exempt from the requirements of this rule.

a. S-5943-0-1: Facility-Wide Requirements

- Condition 33 of the requirements of the facility-wide permit ensures compliance with this rule.

28. District Rule 8071 – Unpaved Vehicle/Equipment Traffic Area

The purpose of this rule is to limit fugitive dust emissions from unpaved vehicle and equipment traffic areas by implementing control measures and design criteria. This rule applies to any unpaved vehicle/equipment traffic area of 1.0 acre or larger.

Section 4.2 exempts agricultural sources subject to, or specifically exempt from, the requirements of Rule 8081 (Agricultural Sources) from the requirements of this rule. Section 3.1 of District Rule 8011 defines an agricultural source as "any activity or portion of land associated with the commercial growing of crops or the raising of fowl or animals." Since this facility is an agricultural source subject to the requirements of Rule 8081 (Agricultural Sources), it is exempt from the requirements of this rule.

a. S-5943-0-1: Facility-Wide Requirements

- Condition 34 of the requirements of the facility-wide permit ensures compliance with this rule.

29. District Rule 8081 – Agricultural Sources

The purpose of this rule is to limit fugitive dust emissions from agricultural sources. This rule applies to off-field agricultural sources.

Section 5.0 requires that an owner or operator shall comply with Sections 5.1 through 5.3 of Rule 8081 and sufficiently implement at least one of the control measures indicated in each section of Table 8081-1 to limit Visible Dust Emissions (VDE) to 20% opacity or to comply with the conditions for a stabilized surface as defined in Rule 8011. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

a. S-5943-0-1: Facility-Wide Requirements

- Condition 35 of the requirements of the facility-wide permit ensures compliance with this rule.

30. 40 CFR 60, Subpart JJJJ – Standards for Performance for Stationary Spark Ignited Internal Combustion Engines

The purpose of 40 CFR 60 Subpart JJJJ is to establish New Source Performance Standards (NSPS) to reduce emissions of NO_X, SO_X, PM, CO, and VOC from new stationary spark ignition (SI) internal combustion engines (ICE).

Pursuant to Section 60.4230, the provisions of this subpart are applicable to the following:

Owner and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

- On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 hp (except lean burn engines with a maximum engine power greater than or equal to 500 hp and less than 1,350 hp);
- On or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 hp and less than 1,350 hp;
- On or after July 1, 2008, for engines with a maximum engine power less than 500 hp; or
- On or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 hp);

The stationary IC engines at this site were installed prior to June 12, 2006 and have not been modified or reconstructed as defined in this subpart and in part 60; therefore, the provisions of 40 CFR 60 Subpart JJJJ are not applicable to the stationary IC engines at this site.

31. 40 CFR 61, Subpart M – National Emission Standard for Asbestos

There are applicable requirements from the National Emissions Standards for Hazardous Air Pollutants that apply to all sources in general. The requirements of this subpart pertain to asbestos removal and disposal from renovated or demolished structures.

a. S-5943-0-1: Facility-Wide Requirements

- Condition 37 of the requirements of the facility-wide permit ensures compliance with this rule.

32. 40 CFR Part 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

§ 63.6580 Purpose

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

§ 63.6585 Am I subject to this subpart?

This subpart applies to owners and operators of stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

This facility operates eight spark-ignited four-stroke rich-burn (4SRB) stationary RICE at an area source; therefore, the facility is subject to the requirements of this subpart.

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

This facility is an area source of HAP emissions; therefore, this subpart applies.

(1) Existing stationary RICE

(iii) a stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if construction or reconstruction of the stationary RICE commenced before June 12, 2006.

The stationary RICE at this site are defined as "existing" since they were installed prior to June 12, 2006.

(2) New stationary RICE

(iii) A stationary RICE located at an area source of HAP emissions is new if construction of the stationary RICE commenced on or after June 12, 2006.

The stationary RICE at this site were installed prior to June 12, 2006; therefore, the RICE are not new stationary rice.

(3) Reconstructed RICE

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

The stationary RICE at this site were constructed prior to June 12, 2006 and have not been reconstructed after June 12, 2006; therefore, the RICE at this site are not reconstructed RICE.

(b) Stationary RICE subject to limited requirements

(1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake hp located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).
(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions

This facility is an area source and the stationary RICE each have a site rating of less than 500 hp; therefore, the RICE at this site are not subject to limited requirements.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake hp located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

The stationary RICE at this site do not meet the criteria of §63.6590(b)(2).

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake hp located at a major source of HAP emissions;
(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake hp located at a major source of HAP emissions;
(iii) Existing emergency stationary RICE with a site rating of more than 500 brake hp located at a major source of HAP emissions;
(iv) Existing limited use stationary RICE with a site rating of more than 500 brake hp located at a major source of HAP emissions;
(v) Existing stationary RICE with a site rating of more than 500 brake hp located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

The stationary RICE at this agricultural production facility do not qualify for any of the exemptions listed above.

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;
(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;
(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

Each stationary RICE at this site is an existing RICE; therefore, the provisions of this section are not applicable to the RICE at this site.

§ 63.6595 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake hp located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake hp located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake hp located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake hp located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

The stationary RICE at this site are existing SI RICE located at an area source of HAP emissions; therefore, the full compliance date for this subpart for these existing engines is October 19, 2013.

§ 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d (*Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions*) to this subpart and the operating limitations in Table 2b (*Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions*) to this subpart that apply to you.

The operating limitations in Table 2b are not applicable to the RICE at this site since the RICE at this site are not one of the following engine types:

- new or reconstructed 2SLB or CI stationary RICE >500 hp located at a major source of HAP emissions;
- new or reconstructed 4SLB stationary RICE ≥250 hp located at a major source of HAP emissions; or,
- existing CI stationary RICE >500 hp.

This facility is not a major source of HAP emissions and the existing engines are not CI stationary RICE; therefore, the provisions of paragraphs (b), (c), (d), and (e) are not applicable to the SI RICE at this site.

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

Each of the stationary RICE at this site has a site rating of less than 500 hp; therefore, the provisions of this section are not applicable to the RICE at this site.

Applicable Requirements from Table 2d to Subpart ZZZZ of Part 63 - Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

The table on the following page applies to existing stationary RICE located at area sources of HAP emissions:

Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions		
For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
10. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1] b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

[1] Sources have the option to utilize an oil analysis program as described in § 63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

§ 63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

(a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.

(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in § 63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for non-road diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(c) Beginning January 1, 2015, if you own or operate a new emergency CI stationary RICE with a site rating of more than 500 brake HP and a displacement of less than 30 liters per cylinder located at a major source of HAP that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for non-road diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

None of the stationary RICE at this site are CI RICE; therefore, the provisions of this section are not applicable to the RICE at this site.

§ 63.6620What performance tests and other procedures must I use?

(a) You must performance test in Tables 3 and 4 of this subpart that applies to you.

There are no performance test requirements in Tables 3 or 4 of this subpart which are applicable to any RICE at this site. No further discussion is required.

§ 63.6625What are my monitoring, installation, collection, operation, and maintenance requirements?

...

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;
(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;
(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;
(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;
(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;
(6) An existing non-emergency, non-black start stationary RICE located at an area source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.
(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of

HAP emissions that is operated 24 hours or less per calendar year; and
(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

The stationary RICE at this site are existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 hp located at an area source of HAP emissions; therefore, the provisions of §63.6625(e) are applicable to the RICE at this site.

...
(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply. The engines at this site are subject to this requirement and the owner/operator will be required to limit each engine's idle time in accordance with the provisions in this paragraph.

...
(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart.

As previously discussed, the RICE at this site are subject only to item 10 in Table 2d; therefore, the owner/operator does not have the option of utilizing an oil analysis program as allowed in paragraph §63.6625(j).

§ 63.6630How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

(a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.

There are no items in Table 5 to Subpart ZZZZ that are applicable to existing non-emergency SI ICE located at an area source of HAP emissions; therefore, the provisions of this section are not applicable to the RICE at this site.

§ 63.6635How do I monitor and collect data to demonstrate continuous compliance?

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

§ 63.6640How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in § 63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

...

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP

emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

Applicable Requirements from Table 6 to Subpart ZZZZ of Part 63 - Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices

Continuous Compliance with Emission Limitations, Operating Limitations, Work Practices, and Management Practices for Stationary RICE		
For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
9. Existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP	a. Work or Management practices	i. Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or, ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

§ 63.6645What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following:

(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

(2) An existing stationary RICE located at an area source of HAP emissions.

...

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

...

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

...

§ 63.6650What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

...

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.6605(b), including actions taken to correct a malfunction.

(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

...

(f) Each affected source that has obtained a Title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a

Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

§ 63.6655What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records as follows:

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

....

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE:

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in § 63.6640(f)(2)(ii) or (iii) or § 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

§ 63.6660In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

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

b. S-5943-1-1, '-2-1, '-3-1 '-4-1, '-5-1, '-6-1, '-7-1, and '-8-1: Natural gas-fired engines powering agricultural irrigation pumps

These engines have been retrofitted with an emission control system; however the owner/operator is proposing to replace the currently-installed emission control system (Lambda Management System) with a different one (Altronic Control System). The original compliance date of July 1, 2015 is no longer valid due to the proposed change in emission control systems. In order to ensure compliance with the requirements of District Rule 4702 and 40 CFR 63, Subpart ZZZZ, the permittee shall demonstrate full compliance with the requirements of the Authority to Construct (ATC) which authorizes the installation of the

Altronic Control System within six months of the date of issuance of the finalized Title V permit for this site.

- Condition 1 of the requirements for these permit units ensures compliance with this rule.

33.40 CFR Part 64 – Compliance Assurance Monitoring (CAM)

40 CFR Part 64 requires Compliance Assurance Monitoring (CAM) for units at a major source that are required to obtain a part 70 or 71 permit that meet all of the following three criteria:

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

The permit for each engine at this stationary source has an emissions limit for VOC, NOx, CO, and PM_{10}. Each engine is equipped with an add-on emission control device which provides control for NOx, CO, and VOC emissions. The engines have no add-on control for PM_{10} emissions. The major source thresholds from District Rule 2201 are shown in the following table.

Pollutant	Major Source Threshold (lb/year)
VOC	20,000
NO_X	20,000
CO	200,000
PM_{10}	140,000

CAM is not required during an Initial Title V evaluation for units with post-control potential to emit less than the major source threshold. The following calculations establish whether CAM is required during the initial Title V for any of the engines.

The eight engines are equipped with a non-selective (3-way) catalyst system which provides control for NOx, CO, and VOC emissions. The catalyst is certified per District Rule 4702 to reduce NOx emissions by 80%, CO emissions by 80%, and VOC emissions by 50%. These engines are currently operating in compliance with Rule 4702, Table 3, Rich-Burn engine type and are, therefore, required to meet a NOx emissions reduction of 80%, a CO emissions concentration of 2,000 ppmv @ 15% O2, and a VOC emissions concentration of 250 ppmv @ 15% O2.

Assumptions:

NOx Controlled Emission Factor: 2.102 g/bhp-hr
CO Controlled Emission Factor: 3.4 g/bhp-hr
VOC Controlled Emission Factor: 0.099 g/bhp-hr
Maximum Operating Schedule: 6,000 hr/yr
Agricultural Load Factor: 80%
$PE_{Controlled}$ = Pollutant $EF_{controlled}$ x engine rating x ag load factor x maximum operating schedule ÷ 453.6 g/lb

Post-Control Emissions for Engines S-5943-1-1, '-2-1, and '-3-1 (250 bhp engine rating)							
Pollutant	$EF_{controlled}$	Engine Rating	Ag Load Factor	Max Hours/Yr	Conversion factor	$PE_{Controlled}$	CAM at Initial TV (Y/N)
NO_x	2.102	250	0.8	6,000	453.6	5,561	N
CO	3.4	250	0.8	6,000	453.6	8,995	N
VOC	0.099	250	0.8	6,000	453.6	262	N

Post-Control Emissions for Engines S-5943-4-1; '-5-1 and '-6-1 (200 bhp engine rating)							
Pollutant	$EF_{controlled}$	Engine Rating	Ag Load Factor	Max Hours/Yr	Conversion factor	$PE_{Controlled}$	CAM at Initial TV (Y/N)
NO_x	2.102	200	0.8	6,000	453.6	4,449	N
CO	3.4	200	0.8	6,000	453.6	7,196	N
VOC	0.099	200	0.8	6,000	453.6	210	N

Post-Control Emissions for Engines S-5943-7-1; and '-8-1 (125 bhp engine rating)							
Pollutant	$EF_{controlled}$	Engine Rating	Ag Load Factor	Max Hours/Yr	Conversion factor	$PE_{Controlled}$	CAM at Initial TV (Y/N)
NO_x	2.102	125	0.8	6,000	453.6	2,780	N
CO	3.4	125	0.8	6,000	453.6	4,497	N
VOC	0.099	125	0.8	6,000	453.6	131	N

As demonstrated in the previous tables, CAM is not required at initial Title V for any of the engines.

The next set of tables outline whether the engines are subject to CAM based on each engine's annual uncontrolled emissions.

Assumptions:

NOx Controlled Emission Factor: 2.102 g/bhp-hr
Catalyst NOx Control Efficiency: 80%
CO Controlled Emission Factor: 3.4 g/bhp-hr
Catalyst CO Control Efficiency: 80%

VOC Controlled Emission Factor: 0.099 g/bhp-hr
Catalyst VOC Control Efficiency: 50%
Maximum Operating Schedule: 6,000 hr/yr
Agricultural Load Factor: 80%

$PE_{Uncontrolled}$ = Pollutant $EF_{controlled}$ x engine rating x ag load factor x maximum operating schedule ÷ ([1-catalyst CE] x 453.6 g/lb)

Engine S-5943-1-1, '-2-1, and '-3-1 (250 bhp engine rating)								
Pollutant	$EF_{controlled}$	Engine Rating	Ag Load Factor	Max Hours/Yr	Catalyst CE	Conversion factor	$PE_{Uncontrolled}$	Subject to CAM (Y/N)
NO_x	2.102	250	0.8	6,000	0.8	453.6	27,804	Y
CO	3.4	250	0.8	6,000	0.8	453.6	44,974	N
VOC	0.099	250	0.8	6,000	0.5	453.6	524	N

Engine S-5943-4-1; '-5-1; and '-6-1 (200 bhp engine rating)								
Pollutant	$EF_{controlled}$	Engine Rating	Ag Load Factor	Max Hours/Yr	Catalyst CE	Conversion factor	$PE_{Uncontrolled}$	Subject to CAM (Y/N)
NO_x	2.102	200	0.8	6,000	0.8	453.6	22,243	Y
CO	3.4	200	0.8	6,000	0.8	453.6	35,979	N
VOC	0.099	200	0.8	6,000	0.5	453.6	419	N

Engine S-5943-7-1 and '-8-1 (125 bhp engine rating)								
Pollutant	$EF_{controlled}$	Engine Rating	Ag Load Factor	Max Hours/Yr	Catalyst CE	Conversion factor	$PE_{Uncontrolled}$	Subject to CAM (Y/N)
NO_x	2.102	125	0.8	6,000	0.8	453.6	13,902	N
CO	3.4	125	0.8	6,000	0.8	453.6	22,487	N
VOC	0.099	125	0.8	6,000	0.5	453.6	262	N

The calculations above show that six engines, permit units S-5943-1-1 through '-6-1, are subject to CAM for NOx. However, the controlled emissions from these engines allow CAM to be postponed until the next significant modification or permit renewal.

34. 40 CFR 82, Subparts B and F – Stratospheric Ozone

There are applicable requirements from Title VI of the CAA (Stratospheric Ozone) that apply to all sources in general. These requirements pertain to air conditioners, chillers, and refrigerators located at a Title V source and to disposal of air conditioners or maintenance/recharging/disposal of motor vehicle air conditioners (MVAC).

a. S-5943-0-1: Facility-wide Requirements

- Conditions 27 and 28 of the requirements for this permit unit ensure compliance with this rule.

X. PERMIT SHIELD

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

A. Requirements Addressed by Model General Permit Templates

The applicant has not requested to utilize any model general permit templates.

B. Requirements not Addressed by Model General Permit Templates

The applicant has not requested a permit shield for any requirements not addressed by model general permit templates.

XI. PERMIT CONDITIONS

See final operating permits beginning on the following page.

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

Permit to Operate

FACILITY: S-5943

EXPIRATION DATE: 12/31/2019

LEGAL OWNER OR OPERATOR: MARTIN HEIN RANCH CO-PREMIERE ALMONDS 12
MAILING ADDRESS: 27210 ROAD 108
VISALIA, CA 93277

FACILITY LOCATION: 13812 WESTERN AVE.
CORNER HANAWALT & LEONARD
WASCO, CA

FACILITY DESCRIPTION: FARM

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.

Seyed Sadredin
Executive Director / APCO

Arnaud Marjollet
Director of Permit Services

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

San Joaquin Valley
Air Pollution Control District

FACILITY: S-5943-0-1 **EXPIRATION DATE:** 12/31/2019

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, 9.9.1 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

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

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 2 (on and after 1/1/2011) 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 Rule 8021 and 8011] 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 Rule 8031 and 8011] 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 Rule 8041 and 8011] 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 Rule 8051 and 8011] 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 Rule 8061 and Rule 8011] 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 Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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]

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] Federally Enforceable Through Title V Permit

45. This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [Public Resources Code 21000-21177: California Environmental Quality Act]

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

46. On August 31, 2015, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-1-1 **EXPIRATION DATE:** 12/31/2019

EQUIPMENT DESCRIPTION:
250 BHP CUMMINS MODEL GTA-12 NATURAL GAS-FIRED IC ENGINE SN #25228707 WITH A LAMBDA 3 WAY CATALYST POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. In order to ensure compliance with the requirements of District Rule 4702, Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, the permittee shall demonstrate full compliance with the requirements of the Authority to Construct (ATC) which authorized the installation of the Altronic Control System within six months of the date of issuance of the finalized Title V permit for this site. [District Rules 2520 and 4702 and 40 CFR Part 63, Subpart ZZZZ] 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]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702]
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
5. 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]
6. This IC engine shall be fired exclusively on Public Utility Commission (PUC) regulated natural gas. [District Rules 2201, 4702, and 4801]
7. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702]
8. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]
9. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rules 2201 and 4702]
10. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]
11. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
12. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

14. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

15. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

16. If the lambda setting is either fuel lean (yellow light) or fuel rich (red light), the operator shall adjust the lambda management controller as necessary to return the system to the optimum lambda setting (green light) as soon as possible, but no longer than eight hours after detection. If the lambda setting cannot be returned to the optimum lambda setting within eight hours after detection, the operator shall notify the District and shut the engine down within the following hour, and shall not operate the engine until after making all necessary repairs to return the system to green light status. [District Rule 4702]

17. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 (pre- and post-catalyst, if using percent reduction to demonstrate NOx compliance) at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last 60 months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

19. When using exhaust concentration to demonstrate compliance, if the NOx or CO concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]
21. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]
22. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]
23. The permittee shall maintain records of: (1) the date and time of NOx, CO and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702]
24. 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]
25. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]
26. 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]
27. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its conditional certification requirements. [District Rule 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-2-1 **EXPIRATION DATE:** 12/31/2019

EQUIPMENT DESCRIPTION:
250 BHP CUMMINS MODEL GTA-12 NATURAL GAS-FIRED IC ENGINE SN #25228175 WITH A LAMBDA 3 WAY CATALYST POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. In order to ensure compliance with the requirements of District Rule 4702, Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, the permittee shall demonstrate full compliance with the requirements of the Authority to Construct (ATC) which authorized the installation of the Altronic Control System within six months of the date of issuance of the finalized Title V permit for this site. [District Rules 2520 and 4702 and 40 CFR Part 63, Subpart ZZZZ] 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]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702]
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
5. 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]
6. This IC engine shall be fired exclusively on Public Utility Commission (PUC) regulated natural gas. [District Rules 2201, 4702, and 4801]
7. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702]
8. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]
9. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rules 2201 and 4702]
10. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]
11. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
12. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

14. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

15. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

16. If the lambda setting is either fuel lean (yellow light) or fuel rich (red light), the operator shall adjust the lambda management controller as necessary to return the system to the optimum lambda setting (green light) as soon as possible, but no longer than eight hours after detection. If the lambda setting cannot be returned to the optimum lambda setting within eight hours after detection, the operator shall notify the District and shut the engine down within the following hour, and shall not operate the engine until after making all necessary repairs to return the system to green light status. [District Rule 4702]

17. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 (pre- and post-catalyst, if using percent reduction to demonstrate NOx compliance) at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last 60 months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

19. When using exhaust concentration to demonstrate compliance, if the NOx or CO concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]
21. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]
22. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]
23. The permittee shall maintain records of: (1) the date and time of NOx, CO and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702]
24. 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]
25. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]
26. 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]
27. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its conditional certification requirements. [District Rule 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-3-1 **EXPIRATION DATE:** 12/31/2019

EQUIPMENT DESCRIPTION:
250 BHP CUMMINS MODEL GTA-12 NATURAL GAS-FIRED IC ENGINE SN #25228010 WITH A LAMBDA 3-WAY CATALYST POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. In order to ensure compliance with the requirements of District Rule 4702, Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, the permittee shall demonstrate full compliance with the requirements of the Authority to Construct (ATC) which authorized the installation of the Altronic Control System within six months of the date of issuance of the finalized Title V permit for this site. [District Rules 2520 and 4702 and 40 CFR Part 63, Subpart ZZZZ] 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]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702]
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
5. 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]
6. This IC engine shall be fired exclusively on Public Utility Commission (PUC) regulated natural gas. [District Rules 2201, 4702, and 4801]
7. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702]
8. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]
9. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rules 2201 and 4702]
10. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]
11. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
12. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

14. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

15. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

16. If the lambda setting is either fuel lean (yellow light) or fuel rich (red light), the operator shall adjust the lambda management controller as necessary to return the system to the optimum lambda setting (green light) as soon as possible, but no longer than eight hours after detection. If the lambda setting cannot be returned to the optimum lambda setting within eight hours after detection, the operator shall notify the District and shut the engine down within the following hour, and shall not operate the engine until after making all necessary repairs to return the system to green light status. [District Rule 4702]

17. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 (pre- and post-catalyst, if using percent reduction to demonstrate NOx compliance) at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last 60 months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

19. When using exhaust concentration to demonstrate compliance, if the NOx or CO concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]
21. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]
22. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]
23. The permittee shall maintain records of: (1) the date and time of NOx, CO and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702]
24. 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]
25. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]
26. 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]
27. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its conditional certification requirements. [District Rule 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-4-1 **EXPIRATION DATE:** 12/31/2019

EQUIPMENT DESCRIPTION:
200 BHP CUMMINS MODEL G-855 NATURAL GAS-FIRED IC ENGINE SN #25228610 WITH A LAMBDA 3 WAY CATALYST POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. In order to ensure compliance with the requirements of District Rule 4702, Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, the permittee shall demonstrate full compliance with the requirements of the Authority to Construct (ATC) which authorized the installation of the Altronic Control System within six months of the date of issuance of the finalized Title V permit for this site. [District Rules 2520 and 4702 and 40 CFR Part 63, Subpart ZZZZ] 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]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702]
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
5. 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]
6. This IC engine shall be fired exclusively on Public Utility Commission (PUC) regulated natural gas. [District Rules 2201, 4702, and 4801]
7. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702]
8. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]
9. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rules 2201 and 4702]
10. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]
11. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
12. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

14. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

15. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

16. If the lambda setting is either fuel lean (yellow light) or fuel rich (red light), the operator shall adjust the lambda management controller as necessary to return the system to the optimum lambda setting (green light) as soon as possible, but no longer than eight hours after detection. If the lambda setting cannot be returned to the optimum lambda setting within eight hours after detection, the operator shall notify the District and shut the engine down within the following hour, and shall not operate the engine until after making all necessary repairs to return the system to green light status. [District Rule 4702]

17. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 (pre- and post-catalyst, if using percent reduction to demonstrate NOx compliance) at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last 60 months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

19. When using exhaust concentration to demonstrate compliance, if the NOx or CO concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]
21. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]
22. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]
23. The permittee shall maintain records of: (1) the date and time of NOx, CO and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702]
24. 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]
25. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]
26. 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]
27. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its conditional certification requirements. [District Rule 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-5-1 **EXPIRATION DATE:** 12/31/2019

EQUIPMENT DESCRIPTION:
200 BHP CUMMINS MODEL G-855 NATURAL GAS-FIRED IC ENGINE SN 25229791 WITH A LAMBDA 3 WAY CATALYST POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. In order to ensure compliance with the requirements of District Rule 4702, Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, the permittee shall demonstrate full compliance with the requirements of the Authority to Construct (ATC) which authorized the installation of the Altronic Control System within six months of the date of issuance of the finalized Title V permit for this site. [District Rules 2520 and 4702 and 40 CFR Part 63, Subpart ZZZZ] 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]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702]
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
5. 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]
6. This IC engine shall be fired exclusively on Public Utility Commission (PUC) regulated natural gas. [District Rules 2201, 4702, and 4801]
7. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702]
8. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]
9. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rules 2201 and 4702]
10. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]
11. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
12. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

14. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

15. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

16. If the lambda setting is either fuel lean (yellow light) or fuel rich (red light), the operator shall adjust the lambda management controller as necessary to return the system to the optimum lambda setting (green light) as soon as possible, but no longer than eight hours after detection. If the lambda setting cannot be returned to the optimum lambda setting within eight hours after detection, the operator shall notify the District and shut the engine down within the following hour, and shall not operate the engine until after making all necessary repairs to return the system to green light status. [District Rule 4702]

17. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 (pre- and post-catalyst, if using percent reduction to demonstrate NOx compliance) at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last 60 months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

19. When using exhaust concentration to demonstrate compliance, if the NOx or CO concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]
21. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]
22. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]
23. The permittee shall maintain records of: (1) the date and time of NOx, CO and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702]
24. 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]
25. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]
26. 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]
27. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its conditional certification requirements. [District Rule 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-6-1 **EXPIRATION DATE:** 12/31/2019

EQUIPMENT DESCRIPTION:
200 BHP CUMMINS MODEL G-855 NATURAL GAS-FIRED IC ENGINE WITH A LAMBDA 3-WAY CATALYST POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. In order to ensure compliance with the requirements of District Rule 4702, Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, the permittee shall demonstrate full compliance with the requirements of the Authority to Construct (ATC) which authorized the installation of the Altronic Control System within six months of the date of issuance of the finalized Title V permit for this site. [District Rules 2520 and 4702 and 40 CFR Part 63, Subpart ZZZZ] 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]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702]
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
5. 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]
6. This IC engine shall be fired exclusively on Public Utility Commission (PUC) regulated natural gas. [District Rules 2201, 4702, and 4801]
7. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702]
8. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]
9. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rules 2201 and 4702]
10. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]
11. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
12. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

14. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

15. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

16. If the lambda setting is either fuel lean (yellow light) or fuel rich (red light), the operator shall adjust the lambda management controller as necessary to return the system to the optimum lambda setting (green light) as soon as possible, but no longer than eight hours after detection. If the lambda setting cannot be returned to the optimum lambda setting within eight hours after detection, the operator shall notify the District and shut the engine down within the following hour, and shall not operate the engine until after making all necessary repairs to return the system to green light status. [District Rule 4702]

17. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 (pre- and post-catalyst, if using percent reduction to demonstrate NOx compliance) at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last 60 months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

19. When using exhaust concentration to demonstrate compliance, if the NOx or CO concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]
21. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]
22. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]
23. The permittee shall maintain records of: (1) the date and time of NOx, CO and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702]
24. 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]
25. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]
26. 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]
27. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its conditional certification requirements. [District Rule 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-7-1 **EXPIRATION DATE:** 12/31/2019

EQUIPMENT DESCRIPTION:
125 BHP CUMMINS MODEL GTA 5.9 NATURAL GAS-FIRED IC ENGINE SN 45576646 WITH A LAMBDA 3 WAY CATALYST POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. In order to ensure compliance with the requirements of District Rule 4702, Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, the permittee shall demonstrate full compliance with the requirements of the Authority to Construct (ATC) which authorized the installation of the Altronic Control System within six months of the date of issuance of the finalized Title V permit for this site. [District Rules 2520 and 4702 and 40 CFR Part 63, Subpart ZZZZ] 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]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702]
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
5. 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]
6. This IC engine shall be fired exclusively on Public Utility Commission (PUC) regulated natural gas. [District Rules 2201, 4702, and 4801]
7. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702]
8. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]
9. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rules 2201 and 4702]
10. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]
11. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
12. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

14. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

15. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

16. If the lambda setting is either fuel lean (yellow light) or fuel rich (red light), the operator shall adjust the lambda management controller as necessary to return the system to the optimum lambda setting (green light) as soon as possible, but no longer than eight hours after detection. If the lambda setting cannot be returned to the optimum lambda setting within eight hours after detection, the operator shall notify the District and shut the engine down within the following hour, and shall not operate the engine until after making all necessary repairs to return the system to green light status. [District Rule 4702]

17. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 (pre- and post-catalyst, if using percent reduction to demonstrate NOx compliance) at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last 60 months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

19. When using exhaust concentration to demonstrate compliance, if the NOx or CO concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]
21. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]
22. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]
23. The permittee shall maintain records of: (1) the date and time of NOx, CO and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702]
24. 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]
25. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]
26. 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]
27. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its conditional certification requirements. [District Rule 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-8-1 **EXPIRATION DATE:** 12/31/2019

EQUIPMENT DESCRIPTION:
125 BHP CUMMINS MODEL GTA 5.9 NATURAL GAS-FIRED IC ENGINE SN 445576620 WITH A LAMBDA 3 WAY CATALYST POWERING AN AGRICULTURAL IRRIGATION PUMP

PERMIT UNIT REQUIREMENTS

1. In order to ensure compliance with the requirements of District Rule 4702, Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, the permittee shall demonstrate full compliance with the requirements of the Authority to Construct (ATC) which authorized the installation of the Altronic Control System within six months of the date of issuance of the finalized Title V permit for this site. [District Rules 2520 and 4702 and 40 CFR Part 63, Subpart ZZZZ] 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]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702]
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
5. 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]
6. This IC engine shall be fired exclusively on Public Utility Commission (PUC) regulated natural gas. [District Rules 2201, 4702, and 4801]
7. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rules 2201 and 4702]
8. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]
9. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rules 2201 and 4702]
10. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]
11. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
12. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

14. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

15. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

16. If the lambda setting is either fuel lean (yellow light) or fuel rich (red light), the operator shall adjust the lambda management controller as necessary to return the system to the optimum lambda setting (green light) as soon as possible, but no longer than eight hours after detection. If the lambda setting cannot be returned to the optimum lambda setting within eight hours after detection, the operator shall notify the District and shut the engine down within the following hour, and shall not operate the engine until after making all necessary repairs to return the system to green light status. [District Rule 4702]

17. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 (pre- and post-catalyst, if using percent reduction to demonstrate NOx compliance) at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last 60 months. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

19. When using exhaust concentration to demonstrate compliance, if the NOx or CO concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]
21. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]
22. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]
23. The permittee shall maintain records of: (1) the date and time of NOx, CO and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702]
24. 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]
25. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]
26. 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]
27. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its conditional certification requirements. [District Rule 4702]

Attachment A

Detailed Facility Printout

Detailed Facility Report

For Facility=5943
Sorted by Facility Name and Permit Number

MARTIN HEIN RANCH CO-PREMIERE ALMONDS 12
13812 WESTERN AVE.
CORNER HANAWALT & LEONARD
WASCO, CA

FAC # **S 5943**
STATUS: **A**
TELEPHONE: **5596850200**

TYPE: **TitleV**
TOXIC ID:

EXPIRE ON: 12/31/2019
AREA: 5 /
INSP. DATE: 05/15

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-5943-1-1	250 bhp NG IC engine lambda ag irrig	3020-10 C	1	252.00	252.00	A	250 BHP CUMMINS MODEL GTA-12 NATURAL GAS-FIRED IC ENGINE SN #25228707 WITH A LAMBDA MANAGEMENT SYSTEM POWERING AN AGRICULTURAL IRRIGATION PUMP
S-5943-2-1	250 bhp NG IC engine lambda ag irrig	3020-10 C	1	252.00	252.00	A	250 BHP CUMMINS MODEL GTA-12 NATURAL GAS-FIRED IC ENGINE SN #25228175 WITH A LAMBDA MANAGEMENT SYSTEM POWERING AN AGRICULTURAL IRRIGATION PUMP
S-5943-3-0	250 bhp lambda ag irrigation	3020-10 C	1	252.00	252.00	A	250 BHP CUMMINS MODEL GTA-12 NATURAL GAS-FIRED IC ENGINE SN #25228010 WITH LAMBDA 3-WAY CATALYST POWERING AN AGRICULTURAL PUMP
S-5943-4-1	200 bhp NG IC engine lambda ag irrig	3020-10 C	1	252.00	252.00	A	200 BHP CUMMINS MODEL G-855 NATURAL GAS-FIRED IC ENGINE SN #25228610 WITH LAMBDA MANAGEMENT SYSTEM POWERING AN AGRICULTURAL IRRIGATION PUMP
S-5943-5-1	200 bhp NG IC engine lambda ag irrig	3020-10 C	1	252.00	252.00	A	200 BHP CUMMINS MODEL G-855 NATURAL GAS-FIRED IC ENGINE SN 25229791 WITH CONDITIONALLY CERTIFIED LAMBDA MANAGEMENT SYSTEM POWERING AN AGRICULTURAL IRRIGATION PUMP
S-5943-6-1	200 bhp NG IC engine lambda ag irrig	3020-10 C	1	252.00	252.00	A	200 BHP CUMMINS MODEL G-855 NATURAL GAS-FIRED IC ENGINE WITH CONDITIONALLY CERTIFIED LAMBDA 3-WAY CATALYST POWERING AN AGRICULTURAL PUMP
S-5943-7-1	125 bhp NG IC engine lambda ag irrig	3020-10 B	1	123.00	123.00	A	125 BHP CUMMINS MODEL GTA 5.9 NATURAL GAS-FIRED IC ENGINE SN 45576646 WITH CONDITIONALLY CERTIFIED LAMBDA MANAGEMENT SYSTEM POWERING AN AGRICULTURAL IRRIGATION PUMP
S-5943-8-1	125 bhp NG IC engine lambda ag irrig	3020-10 B	1	123.00	123.00	A	125 BHP CUMMINS MODEL GTA 5.9 NATURAL GAS-FIRED IC ENGINE SN 445576620 WITH CONDITIONALLY CERTIFIED LAMBDA MANAGEMENT SYSTEM POWERING AN AGRICULTURAL IRRIGATION PUMP

Number of Facilities Reported: 1

Attachment B

Insignificant Activities or Equipment

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

HEALTHY AIR LIVING

COMPANY NAME: Martin Hein Ranch	FACILITY ID: S-5943

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

Exemption Category	Rule 2020 Citation	√
Structure or incinerator assoc. with a structure designed as a dwelling for 4 families or less	4.1	√
Locomotives, airplanes, and watercraft used to transport passengers or freight	4.4	
Natural gas or LPG-fired boilers or other indirect heat transfer units of 5 MMBtu/hr or less	6.1.1	
Piston-type i.c.engine with maximum continuous rating of 50 braking horsepower (bhp) or less	6.1.2	√
Gas turbine engines with maximum heat input rating of 3 MMBtu/hr or less	6.1.3	
Space heating equipment other than boilers	6.1.4	√
Cooling towers with a circulation rate less than 10,000 gal/min, and that are not used for cooling of process water, or water from barometric jets or condensers++	6.2	
Use of less than 2 gal/day of graphic arts materials	6.3	√
Equipment at retail establishments used to prepare food for human consumption	6.4.1	
Ovens at bakeries with total daily production less than 1,000 pounds and exempt by sec. 6.1.1	6.4.3	
Equipment used exclusively for extruding or compression molding of rubber or plastics, where no plastisizer or blowing agent is used	6.5	
Containers used to store clean produced water	6.6.1	
Containers ≤100 bbl used to store oil with specific gravity ≥ 0.8762	6.6.2	√
Containers ≤ 100 bbl installed prior to 6/1/89 used to store oil with specific gravity ≥ 0.8762	6.6.3	
Containers with a capacity ≤ 250 gallons used to store organic material where the actual storage temperature <150 F	6.6.4	√
Containers used to store unheated organic material with an initial boiling point ≥ 302 F	6.6.5	√
Containers used to store fuel oils or non-air-blown asphalt with specific gravity ≥0.9042	6.6.6	
Containers used to store petroleum distillates used as motor fuel with specific gravity ≥ 0.8251	6.6.7	√

Exemption Category	Rule 2020 Citation	√
Containers used to store refined lubricating oils	6.6.8	√
Unvented pressure vessels used exclusively to store liquified gases or assoc with exempt equipment	6.6.9 or 6.13	
Portable tanks used exclusively to store produced fluids for ≤ six months	6.6.10	
Mobile transport tanks on delivery vehicles of VOCs	6.6.11	√
Loading racks used for the transfer of less than 4,000 gal/day of unheated organic material with initial boiling point ≥ 302 F or of fuel oil with specific gravity ≥0.8251	6.7.1.1	√
Loading racks used for the transfer of asphalt, crude or residual oil stored in exempt tanks, or crude oil with specific gravity ≥ 0.8762	6.7.1.2	
Equipment used exclusively for the transfer of refined lubricating oil	6.7.2	√
Equipment used to apply architectural coatings	6.8.1	√
Unheated, non-conveyorized cleaning equipment with < 10 ft^2 open area; using solvents with initial boiling point ≥ 248 F; and < 25 gal/yr. evaporative losses	6.9	√
Brazing, soldering, or welding equipment	6.10	√
Equipment used to compress natural gas	6.11	
Fugitive emissions sources assoc. with exempt equipment	6.12	√
Pits and Ponds as defined in Rule 1020	6.15	√
On-site roadmix manufacturing and the application of roadmix as a road base material	6.17	
Emissions less than 2 lb/day from units not included above	6.19	√
Venting PUC quality natural gas from for sole purpose of pipeline and compressor repair and or maintenance	7.2	
Non-structural repairs & maintenance to permitted equipment	7.3	√
Detonation of explosives ≤ 100 lb/day and 1,000 lb/year	7.4	

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

Attachment C

Previous District PTOs

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-1-0 **EXPIRATION DATE:** 12/31/2016

EQUIPMENT DESCRIPTION:
250 BHP CUMMINS MODEL GTA-12 NATURAL GAS-FIRED IC ENGINE WITH LAMBDA 3-WAY CATALYST POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. 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 1070]
2. 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 1070]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. 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]
7. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
8. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
10. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
11. 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]
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201 and 4801]
13. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

15. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

16. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

17. If the lambda setting is either fuel lean (yellow light) or fuel rich (red light), the operator shall adjust the lambda management controller as necessary to return the system to the optimum lambda setting (green light) as soon as possible, but no longer than eight hours after detection. If the lambda setting cannot be returned to the optimum lambda setting within eight hours after detection, the operator shall notify the District and shut the engine down within the following hour, and shall not operate the engine until after making all necessary repairs to return the system to green light status. [District Rule 4702]

18. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

19. The permittee shall monitor and record the stack concentration (pre- and post-catalyst, if using percent reduction to demonstrate compliance) of NOx and O2 at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

20. When using exhaust concentration to demonstrate compliance, if the NOx concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]
22. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]
23. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]
24. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rule 4702]
25. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]
26. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rule 4702]
27. 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]
28. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]
29. 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]
30. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its certification requirements. [District Rule 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-2-0 **EXPIRATION DATE:** 12/31/2016

EQUIPMENT DESCRIPTION:
250 BHP CUMMINS MODEL GTA-12 NATURAL GAS-FIRED IC ENGINE WITH LAMBDA 3-WAY CATALYST POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. 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 1070]
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3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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6. 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]
7. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
8. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
10. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
11. 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]
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201 and 4801]
13. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

15. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

16. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

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19. The permittee shall monitor and record the stack concentration (pre- and post-catalyst, if using percent reduction to demonstrate compliance) of NOx and O2 at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-3-0 **EXPIRATION DATE:** 12/31/2016

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9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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18. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

19. The permittee shall monitor and record the stack concentration (pre- and post-catalyst, if using percent reduction to demonstrate compliance) of NOx and O2 at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

20. When using exhaust concentration to demonstrate compliance, if the NOx concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]
22. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]
23. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]
24. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rule 4702]
25. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]
26. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rule 4702]
27. 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]
28. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]
29. 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]
30. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its certification requirements. [District Rule 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-4-0 **EXPIRATION DATE:** 12/31/2016

EQUIPMENT DESCRIPTION:
200 BHP CUMMINS MODEL G-855 NATURAL GAS-FIRED IC ENGINE WITH LAMBDA 3-WAY CATALYST POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. 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 1070]
2. 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 1070]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. 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]
7. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
8. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
10. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
11. 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]
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201 and 4801]
13. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

15. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

16. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

17. If the lambda setting is either fuel lean (yellow light) or fuel rich (red light), the operator shall adjust the lambda management controller as necessary to return the system to the optimum lambda setting (green light) as soon as possible, but no longer than eight hours after detection. If the lambda setting cannot be returned to the optimum lambda setting within eight hours after detection, the operator shall notify the District and shut the engine down within the following hour, and shall not operate the engine until after making all necessary repairs to return the system to green light status. [District Rule 4702]

18. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

19. The permittee shall monitor and record the stack concentration (pre- and post-catalyst, if using percent reduction to demonstrate compliance) of NOx and O2 at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

20. When using exhaust concentration to demonstrate compliance, if the NOx concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]
22. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]
23. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]
24. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rule 4702]
25. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]
26. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rule 4702]
27. 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]
28. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]
29. 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]
30. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its certification requirements. [District Rule 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-5-0 **EXPIRATION DATE:** 12/31/2016

EQUIPMENT DESCRIPTION:
200 BHP CUMMINS MODEL G-855 NATURAL GAS-FIRED IC ENGINE WITH LAMBDA 3-WAY CATALYST POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. 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 1070]
2. 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 1070]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. 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]
7. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
8. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
10. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
11. 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]
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201 and 4801]
13. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

15. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

16. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

17. If the lambda setting is either fuel lean (yellow light) or fuel rich (red light), the operator shall adjust the lambda management controller as necessary to return the system to the optimum lambda setting (green light) as soon as possible, but no longer than eight hours after detection. If the lambda setting cannot be returned to the optimum lambda setting within eight hours after detection, the operator shall notify the District and shut the engine down within the following hour, and shall not operate the engine until after making all necessary repairs to return the system to green light status. [District Rule 4702]

18. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

19. The permittee shall monitor and record the stack concentration (pre- and post-catalyst, if using percent reduction to demonstrate compliance) of NOx and O2 at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

20. When using exhaust concentration to demonstrate compliance, if the NOx concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]

22. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]

23. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]

24. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rule 4702]

25. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]

26. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rule 4702]

27. 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]

28. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]

29. 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]

30. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its certification requirements. [District Rule 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-6-0 **EXPIRATION DATE:** 12/31/2016

EQUIPMENT DESCRIPTION:
200 BHP CUMMINS MODEL G-855 NATURAL GAS-FIRED IC ENGINE WITH LAMBDA 3-WAY CATALYST POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. 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 1070]
2. 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 1070]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. 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]
7. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
8. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
10. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
11. 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]
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201 and 4801]
13. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

15. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

16. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

17. If the lambda setting is either fuel lean (yellow light) or fuel rich (red light), the operator shall adjust the lambda management controller as necessary to return the system to the optimum lambda setting (green light) as soon as possible, but no longer than eight hours after detection. If the lambda setting cannot be returned to the optimum lambda setting within eight hours after detection, the operator shall notify the District and shut the engine down within the following hour, and shall not operate the engine until after making all necessary repairs to return the system to green light status. [District Rule 4702]

18. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

19. The permittee shall monitor and record the stack concentration (pre- and post-catalyst, if using percent reduction to demonstrate compliance) of NOx and O2 at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

20. When using exhaust concentration to demonstrate compliance, if the NOx concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]
22. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]
23. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]
24. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rule 4702]
25. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]
26. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rule 4702]
27. 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]
28. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]
29. 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]
30. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its certification requirements. [District Rule 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-7-0 **EXPIRATION DATE:** 12/31/2016

EQUIPMENT DESCRIPTION:
125 BHP CUMMINS MODEL GTA 5.9 NATURAL GAS-FIRED IC ENGINE WITH LAMBDA 3-WAY CATALYST POWERING AN AGRICULTURAL PUMP

PERMIT UNIT REQUIREMENTS

1. 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 1070]
2. 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 1070]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. 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]
7. The add-on emission control system (hereinafter referred to as the "Lambda Management System") shall consist of a Johnson-Matthey Model CXX8-4 3-way catalyst module, a Gas Systems Model LMS-MF-2D1 air/fuel ratio controller ("Lambda Management Controller"), and a Bosch Model LSU 4.2 oxygen sensor. [District Rule 4702]
8. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
10. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
11. 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]
12. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201 and 4801]
13. Operation of this engine shall not exceed 6,000 hours per year. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. The oxygen sensor shall be replaced at least once every 2,000 hours of operation. Whenever the oxygen sensor is replaced, the new oxygen sensor shall be calibrated according to the procedures outlined by Lambda prior to engine operation. [District Rule 4702]

15. The catalyst module shall be washed according to manufacturer recommendations or replaced as necessary at least once every 8,000 hours of operation. [District Rule 4702]

16. The operator shall perform monthly inspections of the Lambda Management System. The monthly inspection shall ensure the system is operating correctly, i.e. the wiring, installation, and indicator lights are all visibly compliant per Lambda's recommendation. The operator shall monitor the lambda management controller and record any adjustments necessary to return the system to the optimum lambda setting (green light) at least once every month. Monitoring shall be performed with the engine operating at conditions representative of normal source operations. Monitoring shall not be required if the engine is not in operation during any one calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within a week of restarting the engine unless monitoring has been performed within the last calendar month. Records shall be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

17. If the lambda setting is either fuel lean (yellow light) or fuel rich (red light), the operator shall adjust the lambda management controller as necessary to return the system to the optimum lambda setting (green light) as soon as possible, but no longer than eight hours after detection. If the lambda setting cannot be returned to the optimum lambda setting within eight hours after detection, the operator shall notify the District and shut the engine down within the following hour, and shall not operate the engine until after making all necessary repairs to return the system to green light status. [District Rule 4702]

18. The operator shall maintain records of: 1.) The date and time of the lambda management controller monitoring, the lambda setting (e.g. green, yellow, or red light), and a description of any adjustments made to return the system to the optimum lambda setting (green light); 2.) The date and engine hour meter reading at each oxygen sensor change and a description of the oxygen sensor calibration procedures used; and 3.) The date and engine hour meter reading of each catalyst module washing or replacement. [District Rule 4702]

19. The permittee shall monitor and record the stack concentration (pre- and post-catalyst, if using percent reduction to demonstrate compliance) of NOx and O2 at least once every 60 months using a portable emissions monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

20. When using exhaust concentration to demonstrate compliance, if the NOx concentration 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 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 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 the performing the notification and testing required by this condition. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. When using percent reduction to demonstrate compliance, if the percent reduction (using NOx concentrations, as measured by the portable analyzer, corrected to 15% O2) is less than 80%, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to demonstrate percent reduction less than 80% after 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 the performing the notification and testing required by this condition. [District Rule 4702]

22. If compliance is based on the percent reduction allowance, then the exhaust system shall be equipped with adequate sampling ports located both upstream and downstream of the catalyst module. Each sampling port shall be located at least 1/2 duct diameter upstream and at least 2 duct diameters downstream of any bend, diameter change or stack obstruction. [District Rule 4702]

23. All monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]

24. NOx emissions from this IC engine shall be reduced by 80% or not exceed 90 ppmvd-NOx @ 15% O2 (equivalent to 1.3 g-NOx/bhp-hr). [District Rule 4702]

25. PM10 emissions from this IC engine shall not exceed 0.075 g-PM10/bhp-hr. [District Rule 2201]

26. Emissions from this IC engine shall not exceed any of the following limits: 2,000 ppmvd CO @ 15% O2 (equivalent to 17.0 g-CO/bhp-hr) or 250 ppmvd-VOC @ 15% O2 (equivalent to 1.2 g-VOC/bhp-hr). [District Rule 4702]

27. 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]

28. The permittee shall record the total time the engine operates, in hours per calendar year. [District Rule 2201]

29. 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]

30. The District may revise and/or add requirements in the future as necessary to ensure the Lambda Management System operates according to its certification requirements. [District Rule 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-5943-8-0 **EXPIRATION DATE:** 12/31/2016

EQUIPMENT DESCRIPTION:
125 BHP CUMMINS MODEL GTA 5.9 NATURAL GAS-FIRED IC ENGINE WITH LAMBDA 3-WAY CATALYST POWERING AN AGRICULTURAL PUMP

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8. The Lambda Management System shall be installed, maintained and operated according to Lambda's recommendations and shall be in place and operating at all times during engine operation. [District Rule 4702]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
10. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer. [District Rule 4702]
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