



JUL 15 2013

Mr. Joe Miller  
West Kern Water District  
PO Box 1105  
Taft, CA 93268

**Re: Notice of Minor Title V Permit Modification**  
**District Facility # S-349**  
**Project # S-1121854**

Dear Mr. Miller:

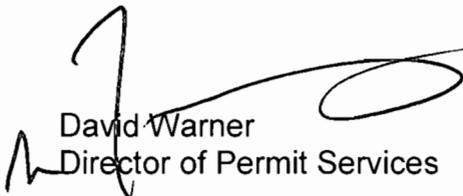
Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to incorporate recently issued S-349-1-13, '-2-10, and '-3-13 into the Title V operating permit. The existing catalyst systems on the permit units were replaced with new 3-way catalysts for District Rule 4702 compliance. You also proposed to comply with 40 CFR 63 Subpart ZZZZ management practice requirements for permit units '-1, '-2, and '-3.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued S-349-1-13, '-2-10, and '-3-13, emission increases, application, and previous Title V permit. This project will be subject to a 45-day EPA commenting period prior to the District taking final action.

If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

  
David Warner  
Director of Permit Services

Enclosures

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

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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**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

# TITLE V APPLICATION REVIEW

Minor Modification  
Project #: 1121854

Engineer: John Yoshimura  
Date: 6/19/13

Facility Number: S-349  
Facility Name: West Kern Water District  
Mailing Address: PO Box 1105  
Taft, CA 93268

Contact Name: Joe Miller  
Phone: (661) 763-3151

Responsible Official: JD Bramlet  
Title: Director of Operations

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## I. PROPOSAL

West Kern Water District (WKWD) is proposing a Title V minor permit modification to incorporate the recently issued S-349-1-13, '-2-10, and '-3-13 into the Title V operating permit. The applicant proposed to replace the existing catalyst system on each permit unit with new 3-way catalysts for District Rule 4702 compliance. The applicant also proposed to comply with 40 CFR 63 Subpart ZZZZ requirements.

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with the applicable requirements and to provide the legal and factual basis for the proposed revisions.

## II. FACILITY LOCATION

The facility is located at Pump Station B in Section 32, Township 31S, Range 24E, near the intersection of Highway 119 and CA aqueduct.

## III. EQUIPMENT DESCRIPTION

**S-349-1-14:** 778 BHP WAUKESHA MODEL L-5108GU NATURAL GAS/PROPANE-FIRED IC ENGINE SERVED BY A NON-SELECTIVE CATALYTIC REDUCTION SYSTEM POWERING A WATER PUMP

**S-349-2-11:** 946 BHP WAUKESHA MODEL L-5790GU NATURAL GAS-FIRED IC ENGINE (UNIT B-2-#3) SERVED BY A NON-SELECTIVE CATALYTIC REDUCTION SYSTEM POWERING A WATER PUMP

**S-349-3-14:** 946 BHP WAUKESHA MODEL L-5790GU NATURAL GAS/PROPANE-FIRED IC ENGINE (UNIT B-2-#4) SERVED BY A NON-SELECTIVE CATALYTIC REDUCTION SYSTEM POWERING A WATER PUMP

#### **IV. SCOPE OF EPA AND PUBLIC REVIEW**

This change to a Title V permit is considered to be a minor modification and, as such, requires no public review.

#### **V. APPLICABLE REQUIREMENTS**

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

#### **VI. DESCRIPTION OF PROPOSED MODIFICATIONS**

WKWD is proposing to replace the existing catalyst system equipped on permit units '-1, '-2, and '-3 with new 3-way catalysts. These modifications will ensure the engines will be in compliance with the NOx emissions limits from District Rule 4702.

##### S-349-1-14:

Permit conditions 1 through 11 and 13 through 35 on the current Permit to Operate S-349-1-12 are represented by permit conditions 1 through 11 and 13 through 35 on the proposed Permit to Operate S-349-1-14.

Permit condition 12 on the current Permit to Operate S-349-1-12 has been replaced by condition 12 on the proposed Permit to Operate S-349-1-14. The NOx emission limit from S-349-1-12 has been reduced from 25 ppmv to 11 ppmv to meet District Rule 4702 requirements.

Permit condition 36 on the current Permit to Operate S-349-1-12 has been removed since WKWD submitted an application to comply with 40 CFR 63 Subpart ZZZZ.

Permit conditions 36 through 42 on the proposed Permit to Operate S-349-1-14 have been added to ensure WKWD complies with the requirements of 40 CFR 63 Subpart ZZZZ for spark-ignited 4-stroke rich burn engines greater than 500 bhp located at an Area source of HAP emissions in a remote location.

Permit condition 43 on the Authority to Construct S-349-1-13 has been removed since WKWD submitted an application to modify their Title V permit through the Minor Modification process.

S-349-2-11:

Permit conditions 1 through 11, 14 through 37, and 40 on the current Permit to Operate S-349-2-9 are represented by permit conditions 1 through 11, and 13 through 37 on the proposed Permit to Operate S-349-2-11.

Permit condition 12 and 13 on the current Permit to Operate S-349-2-9 have been replaced by condition 12 on the proposed Permit to Operate S-349-2-11. The NOx emission limits from S-349-2-9 have been reduced from 25 ppmv to 11 ppmv to meet District Rule 4702 requirements.

Permit conditions 38 and 39 on the current Permit to Operate S-349-2-9 have been removed because Rule 4702 does not allow the use of curtailment fuels.

Permit condition 41 on the current Permit to Operate S-349-2-9 has been removed since WKWD submitted an application to comply with 40 CFR 63 Subpart ZZZZ.

Permit condition 43 on the Authority to Construct S-349-2-10 has been removed since WKWD submitted an application to modify their Title V permit through the Minor Modification process.

Permit conditions 38 through 44 on the proposed Permit to Operate S-349-2-11 have been added to ensure WKWD complies with the requirements of 40 CFR 63 Subpart ZZZZ for spark-ignited 4-stroke rich burn engines greater than 500 bhp located at an Area source of HAP emissions in a remote location.

S-349-3-14:

Permit conditions 1 through 11 and 13 through 37 on the current Permit to Operate S-349-3-12 are represented by permit conditions 1 through 11 and 13 through 37 on the proposed Permit to Operate S-349-3-14.

Permit condition 12 on the current Permit to Operate S-349-3-12 has been replaced by condition 12 on the proposed Permit to Operate S-349-3-14. The NOx emission limit from S-349-3-12 has been reduced from 25 ppmv to 11 ppmv to meet District Rule 4702 requirements.

Permit condition 38 on the current Permit to Operate S-349-3-12 has been removed since WKWD submitted an application to comply with 40 CFR 63 Subpart ZZZZ.

Permit condition 43 on the Authority to Construct S-349-3-13 has been removed since WKWD submitted an application to modify their Title V permit through the Minor Modification process.

Permit conditions 38 through 44 on the proposed Permit to Operate S-349-3-14 have been added to ensure WKWD complies with the requirements of 40 CFR 63 Subpart ZZZZ for spark-ignited 4-stroke rich burn engines greater than 500 bhp located at an Area source of HAP emissions in a remote location.

## VII. COMPLIANCE

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
  - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
  - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including;

1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
2. The source's suggested draft permit; and

3. Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used.

## **VIII. ATTACHMENTS**

- A. Proposed Modified Title V Operating Permit No. S-349-1-14, '-2-11, and '-3-14
- B. Authorities to Construct No. S-349-1-13, '-2-10, and '-3-13
- C. Emissions Increases
- D. Application
- E. Previous Title V Operating Permit No.'s S-349-1-12, '-2-9, and '-3-12

# ATTACHMENT A

Proposed Modified Title V Operating Permit No.  
(S-349-1-14, '-2-11, and '-3-14)

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-349-1-14

**EXPIRATION DATE:** 10/31/2016

**SECTION:** SE32 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**

778 BHP WAUKESHA MODEL L-5108GU NATURAL GAS/PROPANE-FIRED IC ENGINE SERVED BY A NON-SELECTIVE CATALYTIC REDUCTION SYSTEM POWERING A WATER PUMP

## PERMIT UNIT REQUIREMENTS

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1. Particulate emissions shall not exceed 0.1 gr/dscf at the point of discharge. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Rule 407 (Kern)] Federally Enforceable Through Title V Permit
3. Unit shall be fired on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight, or on liquefied propane gas (LPG) with a sulfur content equal to or less than 0.008% by weight. [Rule 407 (Kern) and District Rule 4702] Federally Enforceable Through Title V Permit
4. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the engine is fired on natural gas that is not PUC-regulated, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, or D4084, or Double GC for H<sub>2</sub>S and mercaptans. [District Rule 2520] Federally Enforceable Through Title V Permit
6. The sulfur content of each delivery of liquefied petroleum gas being fired in the IC engine shall be determined using ASTM method D2784. An equivalent test method may be accepted with prior written District approval. [District Rule 2520] Federally Enforceable Through Title V Permit
7. If the engine is fired on natural gas that is not PUC-regulated, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit
8. IC engine shall be equipped with a controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201] Federally Enforceable Through Title V Permit
10. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
11. All exhaust emissions shall exit through catalytic converter. [District Rule 2201] Federally Enforceable Through Title V Permit

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

12. Emissions from this IC engine shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 11 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> or 0.15 g/bhp-hr; VOC - 125 ppmv @ 15% O<sub>2</sub> or 0.606 g-VOC/bhp-hr; CO - 2000 ppmvd CO @ 15% O<sub>2</sub> or 16.98 g/bhp-hr, PM<sub>10</sub> - 0.204 g-PM<sub>10</sub>/bhp-hr; or SO<sub>x</sub> (as SO<sub>2</sub>) - 0.0145 g-SO<sub>x</sub>/bhp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
13. For reoccurring emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NO<sub>x</sub>, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
14. Source testing to measure natural gas-combustion NO<sub>x</sub>, CO, and VOC emissions from this unit shall be conducted at least once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit
16. Source testing for District Rule 4702 compliance shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100; VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub>, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). 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 calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
20. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (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] Federally Enforceable Through Title V Permit
23. The permittee 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, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications. [District Rule 4702] Federally Enforceable Through Title V Permit
27. The engine shall be operated such that the O<sub>2</sub> sensor output voltage is within 0.6 volts DC - 1.0 volts DC as necessary to meet the air/fuel ratio setting. [40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64.7] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64.9] Federally Enforceable Through Title V Permit
30. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64.7 and 64.8] Federally Enforceable Through Title V Permit
31. The permittee shall record the O<sub>2</sub> sensor reading (in millivolts) on a daily basis. [District Rule 2520 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
32. The portable analyzer shall be calibrated in accordance with manufacturer guidelines and District policy SSP-1810. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Upon detecting any excursion from the acceptable range of millivolt readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR 64.7] Federally Enforceable Through Title V Permit
34. If the IC engine is fired on LPG, the permittee shall maintain supplier invoices for each delivery of liquefied petroleum gas including the corresponding certified sulfur content for a period of at least five years. [District Rule 2520] Federally Enforceable Through Title V Permit
35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the applicable requirements of SJVUAPCD Rule 4201, Kern County Rule 407, and the subsumed requirements of Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
36. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

37. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
38. On and after October 19, 2013, the engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
39. On and after October 19, 2013, the engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
40. On and after October 19, 2013, the engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
41. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action 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. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
42. On and after October 19, 2013, the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

DRAFT

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-349-2-11

**EXPIRATION DATE:** 10/31/2016

**SECTION:** SE32 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**

946 BHP WAUKESHA MODEL L-5790GU NATURAL GAS-FIRED IC ENGINE (UNIT B-2-#3) SERVED BY A NON-SELECTIVE CATALYTIC REDUCTION SYSTEM POWERING A WATER PUMP

## PERMIT UNIT REQUIREMENTS

1. Particulate emissions shall not exceed 0.1 gr/dscf at the point of discharge. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Rule 407 (Kern)] Federally Enforceable Through Title V Permit
3. Unit shall be fired on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight, or on liquefied propane gas (LPG) with a sulfur content equal to or less than 0.008% by weight. [Rule 407 (Kern) and District Rule 4702] Federally Enforceable Through Title V Permit
4. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the engine is fired on natural gas that is not PUC-regulated, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, or D4084, or Double GC for H2S and mercaptans. [District Rule 2520] Federally Enforceable Through Title V Permit
6. The sulfur content of each delivery of liquefied petroleum gas being fired in the IC engine shall be determined using ASTM method D2784. An equivalent test method may be accepted with prior written District approval. [District Rule 2520] Federally Enforceable Through Title V Permit
7. If the engine is fired on natural gas that is not PUC-regulated, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit
8. IC engine shall be equipped with a controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201] Federally Enforceable Through Title V Permit
10. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
11. All exhaust emissions shall exit through catalytic converter. [District Rule 2201] Federally Enforceable Through Title V Permit

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

12. Emissions from this IC engine shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 11 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> or 0.15 g/bhp-hr; VOC - 125 ppmv @ 15% O<sub>2</sub> or 0.606 g-VOC/bhp-hr; CO - 2000 ppmvd CO @ 15% O<sub>2</sub> or 16.98 g/bhp-hr, PM<sub>10</sub> - 0.204 g-PM<sub>10</sub>/bhp-hr; or SO<sub>x</sub> (as SO<sub>2</sub>) - 0.0145 g-SO<sub>x</sub>/bhp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
13. For reoccurring emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NO<sub>x</sub>, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
14. Source testing to measure natural gas-combustion NO<sub>x</sub>, CO, and VOC emissions from this unit shall be conducted at least once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit
16. Source testing for District Rule 4702 compliance shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100; VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub>, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). 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 calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
20. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

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

22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (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] Federally Enforceable Through Title V Permit
23. The permittee 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, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications. [District Rule 4702] Federally Enforceable Through Title V Permit
27. The engine shall be operated such that the O<sub>2</sub> sensor output voltage is within 0.6 volts DC - 1.0 volts DC as necessary to meet the air/fuel ratio setting. [40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64.7] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64.9] Federally Enforceable Through Title V Permit
30. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64.7 and 64.8] Federally Enforceable Through Title V Permit
31. The permittee shall record the O<sub>2</sub> sensor reading (in millivolts) on a daily basis. [District Rule 2520 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
32. The portable analyzer shall be calibrated in accordance with manufacturer guidelines and District policy SSP-1810. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Upon detecting any excursion from the acceptable range of millivolt readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR 64.7] Federally Enforceable Through Title V Permit
34. Engine shall be equipped with an RPM indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
35. Maximum engine speed shall not exceed 1,100 rpm. [District Rule 2201] Federally Enforceable Through Title V Permit
36. If the IC engine is fired on LPG, the permittee shall maintain supplier invoices for each delivery of liquefied petroleum gas including the corresponding certified sulfur content for a period of at least five years. [District Rule 2520] Federally Enforceable Through Title V Permit
37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the applicable requirements of SJVUAPCD Rule 4201, Kern County Rule 407, and the subsumed requirements of Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

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

38. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
39. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
40. On and after October 19, 2013, the engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
41. On and after October 19, 2013, the engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
42. On and after October 19, 2013, the engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
43. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action 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. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
44. On and after October 19, 2013, the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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DRAFT

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-349-3-14

**EXPIRATION DATE:** 10/31/2016

**SECTION:** SE32 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**

946 BHP WAUKESHA MODEL L-5790GU NATURAL GAS/PROPANE-FIRED IC ENGINE (UNIT B-2-#4) SERVED BY A NON-SELECTIVE CATALYTIC REDUCTION SYSTEM POWERING A WATER PUMP

## PERMIT UNIT REQUIREMENTS

1. Particulate emissions shall not exceed 0.1 gr/dscf at the point of discharge. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Rule 407 (Kern)] Federally Enforceable Through Title V Permit
3. Unit shall be fired on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight, or on liquefied propane gas (LPG) with a sulfur content equal to or less than 0.008% by weight. [Rule 407 (Kern) and District Rule 4702] Federally Enforceable Through Title V Permit
4. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the engine is fired on natural gas that is not PUC-regulated, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, or D4084, or Double GC for H2S and mercaptans. [District Rule 2520] Federally Enforceable Through Title V Permit
6. The sulfur content of each delivery of liquefied petroleum gas being fired in the IC engine shall be determined using ASTM method D2784. An equivalent test method may be accepted with prior written District approval. [District Rule 2520] Federally Enforceable Through Title V Permit
7. If the engine is fired on natural gas that is not PUC-regulated, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit
8. IC engine shall be equipped with a controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201] Federally Enforceable Through Title V Permit
10. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
11. All exhaust emissions shall exit through catalytic converter. [District Rule 2201] Federally Enforceable Through Title V Permit

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

12. Emissions from this IC engine shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 11 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> or 0.15 g/bhp-hr; VOC - 125 ppmv @ 15% O<sub>2</sub> or 0.606 g-VOC/bhp-hr; CO - 2000 ppmvd CO @ 15% O<sub>2</sub> or 16.98 g/bhp-hr, PM<sub>10</sub> - 0.204 g-PM<sub>10</sub>/bhp-hr; or SO<sub>x</sub> (as SO<sub>2</sub>) - 0.0145 g-SO<sub>x</sub>/bhp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
13. For reoccurring emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NO<sub>x</sub>, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
14. Source testing to measure natural gas-combustion NO<sub>x</sub>, CO, and VOC emissions from this unit shall be conducted at least once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit
16. Source testing for District Rule 4702 compliance shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100; VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub>, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). 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 calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
20. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

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

22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (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] Federally Enforceable Through Title V Permit
23. The permittee 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, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications. [District Rule 4702] Federally Enforceable Through Title V Permit
27. The engine shall be operated such that the O<sub>2</sub> sensor output voltage is within 0.6 volts DC - 1.0 volts DC as necessary to meet the air/fuel ratio setting. [40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64.7] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64.9] Federally Enforceable Through Title V Permit
30. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64.7 and 64.8] Federally Enforceable Through Title V Permit
31. The permittee shall record the O<sub>2</sub> sensor reading (in millivolts) on a daily basis. [District Rule 2520 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
32. The portable analyzer shall be calibrated in accordance with manufacturer guidelines and District policy SSP-1810. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Upon detecting any excursion from the acceptable range of millivolt readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR 64.7] Federally Enforceable Through Title V Permit
34. If the IC engine is fired on LPG, the permittee shall maintain supplier invoices for each delivery of liquefied petroleum gas including the corresponding certified sulfur content for a period of at least five years. [District Rule 2520] Federally Enforceable Through Title V Permit
35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the applicable requirements of SJVUAPCD Rule 4201, Kern County Rule 407, and the subsumed requirements of Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
36. Engine shall be equipped with an RPM indicator. [District Rule-2201] Federally Enforceable Through Title V Permit
37. Maximum engine speed shall not exceed 1,100 rpm. [District Rule 2201] Federally Enforceable Through Title V Permit

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

38. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
39. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
40. On and after October 19, 2013, the engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
41. On and after October 19, 2013, the engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
42. On and after October 19, 2013, the engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
43. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action 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. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
44. On and after October 19, 2013, the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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

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# ATTACHMENT B

Authorities to Construct No.  
(S-349-1-13, '-2-10, and '-3-13)



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-349-1-13

**ISSUANCE DATE:** 05/02/2013

**LEGAL OWNER OR OPERATOR:** WEST KERN WATER DISTRICT  
**MAILING ADDRESS:** PO BOX 1105  
TAFT, CA 93268

**LOCATION:** STATION B  
CA

**SECTION:** SE32 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 778 BHP WAUKESHA MODEL L-5108GU NATURAL GAS/PROPANE-FIRED IC ENGINE EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A WATER PUMP: REPLACE THE EXISTING CATALYST SYSTEM WITH AN EMERACHEM 3-WAY CATALYST, OR EQUIVALENT, FOR RULE 4702 COMPLIANCE

### CONDITIONS

1. Particulate emissions shall not exceed 0.1 gr/dscf at the point of discharge. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Rule 407 (Kern)] Federally Enforceable Through Title V Permit
3. Unit shall be fired on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight, or on liquefied propane gas (LPG) with a sulfur content equal to or less than 0.008% by weight. [Rule 407 (Kern) and District Rule 4702] Federally Enforceable Through Title V Permit
4. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the engine is fired on natural gas that is not PUC-regulated, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, or D4084, or Double GC for H2S and mercaptans. [District Rule 2520] Federally Enforceable Through Title V Permit
6. The sulfur content of each delivery of liquefied petroleum gas being fired in the IC engine shall be determined using ASTM method D2784. An equivalent test method may be accepted with prior written District approval. [District Rule 2520] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE.** Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-349-1-13: May 2 2013 1:32PM - YOSHIMUJ : Joint Inspection NOT Required

7. If the engine is fired on natural gas that is not PUC-regulated, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit
8. IC engine shall be equipped with a controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201] Federally Enforceable Through Title V Permit
10. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
11. All exhaust emissions shall exit through catalytic converter. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emissions from this IC engine shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 11 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> or 0.15 g/bhp-hr; VOC - 125 ppmv @ 15% O<sub>2</sub> or 0.606 g-VOC/bhp-hr; CO - 2000 ppmvd CO @ 15% O<sub>2</sub> or 16.98 g/bhp-hr, PM<sub>10</sub> - 0.204 g-PM<sub>10</sub>/bhp-hr; or SO<sub>x</sub> (as SO<sub>2</sub>) - 0.0145 g-SO<sub>x</sub>/bhp-hr. [District Rules 2201 and 4702]
13. For reoccurring emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NO<sub>x</sub>, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
14. Source testing to measure natural gas-combustion NO<sub>x</sub>, CO, and VOC emissions from this unit shall be conducted at least once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit
16. Source testing for District Rule 4702 compliance shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100; VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub>, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). 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 calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (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] Federally Enforceable Through Title V Permit
23. The permittee 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, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications. [District Rule 4702] Federally Enforceable Through Title V Permit
27. The engine shall be operated such that the O<sub>2</sub> sensor output voltage is within 0.6 volts DC - 1.0 volts DC as necessary to meet the air/fuel ratio setting. [40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64.7] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64.9] Federally Enforceable Through Title V Permit
30. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64.7 and 64.8] Federally Enforceable Through Title V Permit
31. The permittee shall record the O<sub>2</sub> sensor reading (in millivolts) on a daily basis. [District Rule 2520 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
32. The portable analyzer shall be calibrated in accordance with manufacturer guidelines and District policy SSP-1810. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

33. Upon detecting any excursion from the acceptable range of millivolt readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR 64.7] Federally Enforceable Through Title V Permit
34. If the IC engine is fired on LPG, the permittee shall maintain supplier invoices for each delivery of liquefied petroleum gas including the corresponding certified sulfur content for a period of at least five years. [District Rule 2520] Federally Enforceable Through Title V Permit
35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the applicable requirements of SJVUAPCD Rule 4201, Kern County Rule 407, and the subsumed requirements of Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
36. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ]
37. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ]
38. On and after October 19, 2013, the engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ]
39. On and after October 19, 2013, the engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ]
40. On and after October 19, 2013, the engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ]
41. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action 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. [40 CFR 63 Subpart ZZZZ]
42. On and after October 19, 2013, the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ]
43. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit



## AUTHORITY TO CONSTRUCT

PERMIT NO: S-349-2-10

ISSUANCE DATE: 05/02/2013

LEGAL OWNER OR OPERATOR: WEST KERN WATER DISTRICT  
MAILING ADDRESS: PO BOX 1105  
TAFT, CA 93268

LOCATION: STATION B  
CA

SECTION: SE32 TOWNSHIP: 31S RANGE: 24E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 946 BHP WAUKESHA MODEL L-5790GU NATURAL GAS-FIRED IC ENGINE (UNIT B-2-#3) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A WATER PUMP; REPLACE THE EXISTING CATALYST SYSTEM WITH AN EMERACHEM 3-WAY CATALYST, OR EQUIVALENT, FOR RULE 4702 COMPLIANCE

### CONDITIONS

1. Particulate emissions shall not exceed 0.1 gr/dscf at the point of discharge. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Rule 407 (Kern)] Federally Enforceable Through Title V Permit
3. Unit shall be fired on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight, or on liquefied propane gas (LPG) with a sulfur content equal to or less than 0.008% by weight. [Rule 407 (Kern) and District Rule 4702] Federally Enforceable Through Title V Permit
4. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the engine is fired on natural gas that is not PUC-regulated, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, or D4084, or Double GC for H2S and mercaptans. [District Rule 2520] Federally Enforceable Through Title V Permit
6. The sulfur content of each delivery of liquefied petroleum gas being fired in the IC engine shall be determined using ASTM method D2784. An equivalent test method may be accepted with prior written District approval. [District Rule 2520] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services  
S-349-2-10 - May 2 2013 1:32PM - YOSHIMUJ - Joint Inspection NOT Required

7. If the engine is fired on natural gas that is not PUC-regulated, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit
8. IC engine shall be equipped with a controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201] Federally Enforceable Through Title V Permit
10. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
11. All exhaust emissions shall exit through catalytic converter. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emissions from this IC engine shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 11 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> or 0.15 g/bhp-hr; VOC - 125 ppmv @ 15% O<sub>2</sub> or 0.606 g-VOC/bhp-hr; CO - 2000 ppmvd CO @ 15% O<sub>2</sub> or 16.98 g/bhp-hr, PM<sub>10</sub> - 0.204 g-PM<sub>10</sub>/bhp-hr; or SO<sub>x</sub> (as SO<sub>2</sub>) - 0.0145 g-SO<sub>x</sub>/bhp-hr. [District Rules 2201 and 4702]
13. For reoccurring emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NO<sub>x</sub>, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
14. Source testing to measure natural gas-combustion NO<sub>x</sub>, CO, and VOC emissions from this unit shall be conducted at least once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit
16. Source testing for District Rule 4702 compliance shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100; VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub>, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). 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 calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

20. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (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] Federally Enforceable Through Title V Permit
23. The permittee 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, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications. [District Rule 4702] Federally Enforceable Through Title V Permit
27. The engine shall be operated such that the O<sub>2</sub> sensor output voltage is within 0.6 volts DC - 1.0 volts DC as necessary to meet the air/fuel ratio setting. [40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64.7] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64.9] Federally Enforceable Through Title V Permit
30. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64.7 and 64.8] Federally Enforceable Through Title V Permit
31. The permittee shall record the O<sub>2</sub> sensor reading (in millivolts) on a daily basis. [District Rule 2520 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
32. The portable analyzer shall be calibrated in accordance with manufacturer guidelines and District policy SSP-1810. [District Rule 1081] Federally Enforceable Through Title V Permit

33. Upon detecting any excursion from the acceptable range of millivolt readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR 64.7] Federally Enforceable Through Title V Permit
34. If the IC engine is fired on LPG, the permittee shall maintain supplier invoices for each delivery of liquefied petroleum gas including the corresponding certified sulfur content for a period of at least five years. [District Rule 2520] Federally Enforceable Through Title V Permit
35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the applicable requirements of SJVUAPCD Rule 4201, Kern County Rule 407, and the subsumed requirements of Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
36. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ]
37. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ]
38. On and after October 19, 2013, the engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ]
39. On and after October 19, 2013, the engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ]
40. On and after October 19, 2013, the engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ]
41. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action 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. [40 CFR 63 Subpart ZZZZ]
42. On and after October 19, 2013, the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ]
43. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-349-3-13

**ISSUANCE DATE:** 05/02/2013

**LEGAL OWNER OR OPERATOR:** WEST KERN WATER DISTRICT  
**MAILING ADDRESS:** PO BOX 1105  
TAFT, CA 93268

**LOCATION:** STATION B  
CA

**SECTION:** SE32 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 946 BHP WAUKESHA MODEL L-5790GU NATURAL GAS/PROPANE-FIRED IC ENGINE (UNIT B-2-#4) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A WATER PUMP: REPLACE THE EXISTING CATALYST SYSTEM WITH AN EMERACHEM 3-WAY CATALYST, OR EQUIVALENT, FOR RULE 4702 COMPLIANCE

### CONDITIONS

1. Particulate emissions shall not exceed 0.1 gr/dscf at the point of discharge. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Rule 407 (Kern)] Federally Enforceable Through Title V Permit
3. Unit shall be fired on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight, or on liquefied propane gas (LPG) with a sulfur content equal to or less than 0.008% by weight. [Rule 407 (Kern) and District Rule 4702] Federally Enforceable Through Title V Permit
4. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the engine is fired on natural gas that is not PUC-regulated, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, or D4084, or Double GC for H2S and mercaptans. [District Rule 2520] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-349-3-13: May 2 2013 1:32PM - YOSHIMUJ : Joint Inspection NOT Required

6. The sulfur content of each delivery of liquefied petroleum gas being fired in the IC engine shall be determined using ASTM method D2784. An equivalent test method may be accepted with prior written District approval. [District Rule 2520] Federally Enforceable Through Title V Permit
7. If the engine is fired on natural gas that is not PUC-regulated, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit
8. IC engine shall be equipped with a controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201] Federally Enforceable Through Title V Permit
10. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
11. All exhaust emissions shall exit through catalytic converter. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emissions from this IC engine shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 11 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> or 0.15 g/bhp-hr; VOC - 125 ppmv @ 15% O<sub>2</sub> or 0.606 g-VOC/bhp-hr; CO - 2000 ppmvd CO @ 15% O<sub>2</sub> or 16.98 g/bhp-hr, PM<sub>10</sub> - 0.204 g-PM<sub>10</sub>/bhp-hr; or SO<sub>x</sub> (as SO<sub>2</sub>) - 0.0145 g-SO<sub>x</sub>/bhp-hr. [District Rules 2201 and 4702]
13. For reoccurring emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NO<sub>x</sub>, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
14. Source testing to measure natural gas-combustion NO<sub>x</sub>, CO, and VOC emissions from this unit shall be conducted at least once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit
16. Source testing for District Rule 4702 compliance shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100; VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub>, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). 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 calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (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] Federally Enforceable Through Title V Permit
23. The permittee 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, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications. [District Rule 4702] Federally Enforceable Through Title V Permit
27. The engine shall be operated such that the O<sub>2</sub> sensor output voltage is within 0.6 volts DC - 1.0 volts DC as necessary to meet the air/fuel ratio setting. [40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64.7] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64.9] Federally Enforceable Through Title V Permit
30. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64.7 and 64.8] Federally Enforceable Through Title V Permit
31. The permittee shall record the O<sub>2</sub> sensor reading (in millivolts) on a daily basis. [District Rule 2520 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
32. The portable analyzer shall be calibrated in accordance with manufacturer guidelines and District policy SSP-1810. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

33. Upon detecting any excursion from the acceptable range of millivolt readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR 64.7] Federally Enforceable Through Title V Permit
34. If the IC engine is fired on LPG, the permittee shall maintain supplier invoices for each delivery of liquefied petroleum gas including the corresponding certified sulfur content for a period of at least five years. [District Rule 2520] Federally Enforceable Through Title V Permit
35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the applicable requirements of SJVUAPCD Rule 4201, Kern County Rule 407, and the subsumed requirements of Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
36. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ]
37. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ]
38. On and after October 19, 2013, the engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ]
39. On and after October 19, 2013, the engine's spark plugs shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ]
40. On and after October 19, 2013, the engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ]
41. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action 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. [40 CFR 63 Subpart ZZZZ]
42. On and after October 19, 2013, the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ]
43. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit

# ATTACHMENT C

Emissions Increases

	SSIPE (lb/yr)				
	NOx	VOC	CO	SOx	PM10
S-349-1-14	-2,960	0	0	0	0
S-349-2-11	-3,599	0	0	0	0
S-349-3-14	-3,599	0	0	0	0
<b>TOTAL</b>	<b>-10,158</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

# ATTACHMENT D

Application

# San Joaquin Valley Air Pollution Control District

www.valleyair.org

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MAY 30 2012

SJVAPCD  
Southern Region

## Permit Application For:

[ ] ADMINISTRATIVE AMENDMENT    [X] MINOR MODIFICATION    [ ] SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO West Kern Water District		
2. MAILING ADDRESS:  STREET/P.O. BOX: <u>P.O. Box 1105</u>  CITY: <u>Taft</u> STATE: <u>CA</u> ZIP CODE: <u>93268-1105</u>		
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:  STREET: _____ CITY: _____  <u>SE</u> ¼ SECTION <u>32</u> TOWNSHIP <u>31S</u> RANGE <u>24E</u>		INSTALLATION DATE:  11/2012
4. GENERAL NATURE OF BUSINESS: Water Utility		
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary)  Install a larger catalytic converter on Unit B2-2 permit number S-349-1, (NSCR) to meet emission limits for Rule 4702 Phase 2 and 40 CFR 63 zzzz requirements.		
6. TYPE OR PRINT NAME OF APPLICANT:  Joseph W. Miller		TITLE OF APPLICANT: Air Quality Officer
7. SIGNATURE OF APPLICANT:  <i>Joseph W. Miller</i>		DATE: May.15,2012 PHONE: (661) 7633151 FAX: (661) 7655435 EMAIL: joe@wkwd.org

**For APCD Use Only:**

DATE STAMP	<p style="text-align: center;"><u>no \$</u></p> FILING FEE RECEIVED: \$ _____ CHECK#: _____  DATE PAID: _____  PROJECT NO: <u>S-1121854</u> FACILITY ID: <u>S-349</u>
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*Title V - Minor Mod*

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**MAY 30 2012**

## Permit Application For:

SJVAPCD  
Southern Region

[ ] ADMINISTRATIVE AMENDMENT    [X] MINOR MODIFICATION    [ ] SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO West Kern Water District	
2. MAILING ADDRESS:  STREET/P.O. BOX: <u>P.O. Box 1105</u>  CITY: <u>Taft</u> STATE: <u>CA</u> ZIP CODE: <u>93268-1105</u> <span style="float: right;">9-DIGIT</span>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:  STREET: _____ CITY: _____  SE _____ ¼ SECTION <u>32</u> TOWNSHIP <u>31S</u> RANGE <u>24E</u>	INSTALLATION DATE:  11/2012
4. GENERAL NATURE OF BUSINESS: Water Utility	
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE Install a larger catalytic converter on Unit B2-3 permit number S-349-2, (NSCR) to meet emission limits for Rule 4702 Phase 2 and 40 CFR 63 Zzzz requirements.	
6. TYPE OR PRINT NAME OF APPLICANT:  Joseph W. Miller	TITLE OF APPLICANT: Air Quality Officer
7. SIGNATURE OF APPLICANT:  <i>Joseph W. Miller</i> <i>Joseph W. Miller</i>	DATE: May15,2012  PHONE: (661) 7633151 FAX: (661) 7655435 EMAIL: joe@wkwd.org

***For APCD Use Only:***

DATE STAMP	FILING FEE RECEIVED: \$ _____ CHECK#: _____  DATE PAID: _____  PROJECT NO: _____ FACILITY ID: _____
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# San Joaquin Valley Air Pollution Control District

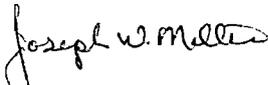
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## Permit Application For:

SJVAPCD  
Southern Region

[ ] ADMINISTRATIVE AMENDMENT    [X] MINOR MODIFICATION    [ ] SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO West Kern Water District		
2. MAILING ADDRESS:		
STREET/P.O. BOX: <u>P.O. Box 1105</u>		
CITY: <u>Taft</u>	STATE: <u>CA</u>	9-DIGIT ZIP CODE: <u>93268-1105</u>
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:		INSTALLATION DATE:
STREET: _____ CITY: _____		11/2012
SE _____ ¼ SECTION <u>32</u> TOWNSHIP <u>31S</u> RANGE <u>24E</u>		
4. GENERAL NATURE OF BUSINESS: Water Utility		
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE		
Install a larger catalytic converter on Unit B2-4 permit number S-349-3, (NSCR) to meet emission limits for Rule 4702 Phase 2 and 40 CFR 63 Zzzz requirements.		
6. TYPE OR PRINT NAME OF APPLICANT:		TITLE OF APPLICANT:
Joseph W. Miller		Air Quality Officer
7. SIGNATURE OF APPLICANT:	DATE:	PHONE: (661) 7633151
<i>Joseph W. Miller</i> 	May 15, 2012	FAX: (661) 7655435
		EMAIL: joe@wkwd.org

**For APCD Use Only:**

DATE STAMP	FILING FEE RECEIVED: \$ _____ CHECK#: _____
	DATE PAID: _____
	PROJECT NO: _____ FACILITY ID: _____

# San Joaquin Valley Air Pollution Control District

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## Permit Application For:

SJVAPCD  
Southern Region

[ ] ADMINISTRATIVE AMENDMENT    [ ] MINOR MODIFICATION    [X] SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO West Kern Water District		
2. MAILING ADDRESS:  STREET/P.O. BOX: <u>P.O. Box 1105</u>  CITY: <u>Taft</u> STATE: <u>CA</u> ZIP CODE: <u>93268-1105</u> <span style="float: right;">9-DIGIT</span>		
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:  STREET: _____ CITY: _____  SW <u>    </u> ¼ SECTION <u>22</u> TOWNSHIP <u>30S</u> RANGE <u>25E</u>	INSTALLATION DATE:  12/2012	
4. GENERAL NATURE OF BUSINESS: Water Utility		
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary)  Convert F-3521GL lean-burn IC engine to an F-3521GSI rich-burn IC engine, install a NSCR catalytic converter and AFRC on B1-1 permit number S-349-7 to meet emission limits for Rule 4702 Phase 2 and 40 CFR 63 zzzz requirements.		
6. TYPE OR PRINT NAME OF APPLICANT:  Joseph W. Miller	TITLE OF APPLICANT: Air Quality Officer	
7. SIGNATURE OF APPLICANT:  <i>Joseph W. Miller</i> <i>Joseph W. Miller</i>	DATE: May 15, 2012	PHONE: (661) 7633151 FAX: (661) 7655435 EMAIL: joe@wkwd.org

**For APCD Use Only:**

DATE STAMP	FILING FEE RECEIVED: \$ _____ CHECK#: _____
	DATE PAID: _____
	PROJECT NO: _____ FACILITY ID: <u>S-349</u>

TV MM

MAY 30 2012

SJVAPCD  
Southern Region

# San Joaquin Valley Unified Air Pollution Control District

## TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

### I. TYPE OF PERMIT ACTION (Check appropriate box)

- SIGNIFICANT PERMIT MODIFICATION                       ADMINISTRATIVE  
 MINOR PERMIT MODIFICATION                                       AMENDMENT

COMPANY NAME: West Kern Water District	FACILITY ID: S - 349
1. Type of Organization: <input type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input checked="" type="checkbox"/> Utility	
2. Owner's Name: West Kern Water District	
3. Agent to the Owner:	

### II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

  
 \_\_\_\_\_  
 Signature of Responsible Official

May.15,2012  
 \_\_\_\_\_  
 Date

JD Bramlet  
 \_\_\_\_\_  
 Name of Responsible Official (please print)

Director of Operations  
 \_\_\_\_\_  
 Title of Responsible Official (please print)

MAY 30 2012

SJVAPCD  
Southern Region

## San Joaquin Valley Unified Air Pollution Control District

### TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

**I. TYPE OF PERMIT ACTION (Check appropriate box)**

SIGNIFICANT PERMIT MODIFICATION                       ADMINISTRATIVE  
 MINOR PERMIT MODIFICATION                                       AMENDMENT

COMPANY NAME: West Kern Water District	FACILITY ID: S - 349-7
1. Type of Organization: <input type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input checked="" type="checkbox"/> Utility	
2. Owner's Name: West Kern Water District	
3. Agent to the Owner:	

**II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):**

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

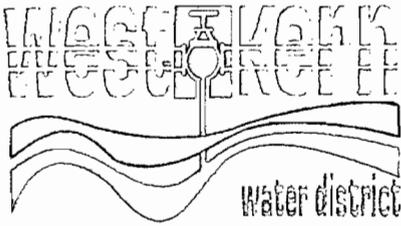
I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

  
 \_\_\_\_\_  
 Signature of Responsible Official

May.15,2012  
 \_\_\_\_\_  
 Date

JD Bramlet  
 \_\_\_\_\_  
 Name of Responsible Official (please print)

Director of Operations  
 \_\_\_\_\_  
 Title of Responsible Official (please print)



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Southern Region

Board of Directors  
Gary J. Morris  
*President*

David A. Wells  
*Vice President*

Charles H. Comfort  
Barry M. Jameson  
Scott Niblett

Harry O. Starkey  
*General Manager*

J.D. Bramlet  
*Director of Operations*

E. Dawn Cole  
*Director of Business  
Administration*

Sanjay "Sunny" Kapoor  
*Director of Finance*

May 30, 2012

Mr. Martin Keast  
Supervising Engineer  
San Joaquin Valley APCD  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244

**Re: REQUEST FOR SIGNIFICANT MODIFICATIONS TO UNITS, 349-7 AND S-353-3 for Rule 4702 Phase 2 and ZZZZ**

Dear Mr. Keast:

Enclosed is the Application for Title V Minor Modifications and Compliance Certifications with ATC's, for S-349-7 and S-353-4. I would like to request that Johnathan Yoshimura work on this project as he is already familiar with the WKWD facilities. West Kern Water is requesting expedited processing for these ATC's.

If you have any questions or require any additional information, please feel free to contact either myself (Ext.129) or Mr. JD Bramlet (Ext.125) at (661) 763-3151.

Sincerely,

Joseph Miller  
Air Quality Officer

Attachments: (2) Permit Application  
(2) Compliance Certifications  
(2) Title V Minor modification

# ATTACHMENT E

Previous Title V Operating Permit No.'s  
S-349-1-14, -2-11, and -3-14

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-349-1-12

**EXPIRATION DATE:** 10/31/2016

**SECTION:** SE32 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**

778 BHP WAUKESHA MODEL L-5108GU NATURAL GAS/PROPANE-FIRED IC ENGINE EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A WATER PUMP

## PERMIT UNIT REQUIREMENTS

---

1. Particulate emissions shall not exceed 0.1 gr/dscf at the point of discharge. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Rule 407 (Kern)] Federally Enforceable Through Title V Permit
3. Unit shall be fired on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight, or on liquefied propane gas (LPG) with a sulfur content equal to or less than 0.008% by weight. [Rule 407 (Kern) and District Rule 4702] Federally Enforceable Through Title V Permit
4. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the engine is fired on natural gas that is not PUC-regulated, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, or D4084, or Double GC for H<sub>2</sub>S and mercaptans. [District Rule 2520] Federally Enforceable Through Title V Permit
6. The sulfur content of each delivery of liquefied petroleum gas being fired in the IC engine shall be determined using ASTM method D2784. An equivalent test method may be accepted with prior written District approval. [District Rule 2520] Federally Enforceable Through Title V Permit
7. If the engine is fired on natural gas that is not PUC-regulated, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit
8. IC engine shall be equipped with a controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The engine shall be equipped with a positive crankcase ventilation (PCV) system. [District NSR Rule] Federally Enforceable Through Title V Permit
10. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
11. All exhaust emissions shall exit through catalytic converter. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Emissions from this IC engine shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 25 ppmv @ 15% O<sub>2</sub>, VOC - 125 ppmv as methane @ 15% O<sub>2</sub>, CO - 2000 ppmv @ 15% O<sub>2</sub>, PM<sub>10</sub> - 0.204 g/hp-hr, or SO<sub>x</sub> (as SO<sub>2</sub>) - 0.0145 g/hp-hr. [District NSR Rule and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. For reoccurring emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NO<sub>x</sub>, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
14. Source testing to measure natural gas-combustion NO<sub>x</sub>, CO, and VOC emissions from this unit shall be conducted at least once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit
16. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100; VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub>, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). 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 calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
20. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (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] Federally Enforceable Through Title V Permit

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

23. The permittee 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, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications. [District Rule 4702] Federally Enforceable Through Title V Permit
27. The engine shall be operated such that the O2 sensor output voltage is within 0.6 volts DC - 1.0 volts DC as necessary to meet the air/fuel ratio setting. [40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64.7] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64.9] Federally Enforceable Through Title V Permit
30. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64.7 and 64.8] Federally Enforceable Through Title V Permit
31. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
32. The portable analyzer shall be calibrated in accordance with manufacturer guidelines and District policy SSP-1810. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Upon detecting any excursion from the acceptable range of millivolt readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR 64.7] Federally Enforceable Through Title V Permit
34. Operator shall maintain supplier invoices for each delivery of liquefied petroleum gas including the corresponding certified sulfur content for a period of at least five years. [District Rule 2520] Federally Enforceable Through Title V Permit
35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the applicable requirements of SJVUAPCD Rule 4201, Kern County Rule 407, and the subsumed requirements of Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
36. By October 19, 2012, the owner/operator shall submit an Authority to Construct (ATC) permit application to the District to comply with 40 CFR 63, ZZZZ. [District Rule 2010] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-349-2-9

**EXPIRATION DATE:** 10/31/2016

**SECTION:** SE32 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**

946 BHP WAUKESHA MODEL L-5790GU NATURAL GAS-FIRED IC ENGINE (UNIT B-2-#3) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A WATER PUMP

## PERMIT UNIT REQUIREMENTS

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1. Particulate emissions shall not exceed 0.1 gr/dscf at the point of discharge. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Rule 407 (Kern)] Federally Enforceable Through Title V Permit
3. Unit shall be fired on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight, or on liquefied propane gas (LPG) with a sulfur content equal to or less than 0.008% by weight. [Rule 407 (Kern) and District Rule 4702] Federally Enforceable Through Title V Permit
4. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the engine is fired on natural gas that is not PUC-regulated, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, or D4084, or Double GC for H<sub>2</sub>S and mercaptans. [District Rule 2520] Federally Enforceable Through Title V Permit
6. The sulfur content of each delivery of liquefied petroleum gas being fired in the IC engine shall be determined using ASTM method D2784. An equivalent test method may be accepted with prior written District approval. [District Rule 2520] Federally Enforceable Through Title V Permit
7. If the engine is fired on natural gas that is not PUC-regulated, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit
8. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
9. IC engine shall be equipped with a controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District NSR Rule] Federally Enforceable Through Title V Permit
10. The engine shall be equipped with a positive crankcase ventilation (PCV) system. [District NSR Rule] Federally Enforceable Through Title V Permit
11. All exhaust emissions shall exit through catalytic converter. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Emissions from this IC engine shall not exceed any of the following when fired on LPG: NO<sub>x</sub> (as NO<sub>2</sub>) - 25 ppmv @ 15% O<sub>2</sub>, VOC - 125 ppmv @ 15% O<sub>2</sub>, CO - 2000 ppmv @ 15% O<sub>2</sub>, PM<sub>10</sub> - 0.204 g/hp-hr, or SO<sub>x</sub> (as SO<sub>2</sub>) - 0.0145 g/hp-hr. [District NSR Rule and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. Emissions from this IC engine shall not exceed any of the following when fired on PUC-quality natural gas: NO<sub>x</sub> (as NO<sub>2</sub>) - 25 ppmv @ 15% O<sub>2</sub>, VOC - 125 ppmv @ 15% O<sub>2</sub>, CO - 2000 ppmv @ 15% O<sub>2</sub>, PM<sub>10</sub> - 0.075 g/hp-hr, or SO<sub>x</sub> (as SO<sub>2</sub>) - 0.011 g/hp-hr. [District NSR Rule and 4702] Federally Enforceable Through Title V Permit
14. For reoccurring emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NO<sub>x</sub>, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing to measure natural gas-combustion NO<sub>x</sub>, CO, and VOC emissions from this unit shall be conducted at least once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
16. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit
17. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
19. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100; VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702] Federally Enforceable Through Title V Permit
20. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub>, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). 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 calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
21. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

24. The permittee 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, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
25. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
27. The engine shall be operated such that the O2 sensor output voltage is within 0.6 volts DC - 1.0 volts DC as necessary to meet the air/fuel ratio setting. [40 CFR 64] Federally Enforceable Through Title V Permit
28. The engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications. [District Rule 4702] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64.7] Federally Enforceable Through Title V Permit
30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64.9] Federally Enforceable Through Title V Permit
31. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64.7 and 64.8] Federally Enforceable Through Title V Permit
32. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
33. The portable analyzer shall be calibrated in accordance with manufacturer guidelines and District policy SSP-1810. [District Rule 1081] Federally Enforceable Through Title V Permit
34. Upon detecting any excursion from the acceptable range of millivolt readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR 64.7] Federally Enforceable Through Title V Permit
35. Engine shall be equipped with an RPM indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
36. Maximum engine speed shall not exceed 1,100 rpm. [District NSR Rule] Federally Enforceable Through Title V Permit
37. Operator shall maintain supplier invoices for each delivery of liquefied petroleum gas including the corresponding certified sulfur content for a period of at least five years. [District Rule 2520] Federally Enforceable Through Title V Permit
38. Propane may be used as backup fuel during periods of natural gas curtailment or maintenance testing on propane and shall be limited to 336 cumulative hours of operation per calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit
39. Records of hours of operation on propane shall be maintained and shall be made available to the District upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
40. Compliance with permit conditions in the Title V permit shall be deemed compliance with the applicable requirements of SJVUAPCD Rule 4201, Kern County Rule 407, and the subsumed requirements of Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

41. By October 19, 2012, the owner/operator shall submit an Authority to Construct (ATC) permit application to the District to comply with 40 CFR 63, ZZZZ. [District Rule 2010] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-349-3-12

**EXPIRATION DATE:** 10/31/2016

**SECTION:** SE32 **TOWNSHIP:** 31S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**

946 BHP WAUKESHA MODEL L-5790GU NATURAL GAS/PROPANE-FIRED IC ENGINE (UNIT B-2-#4) EQUIPPED WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A WATER PUMP

## PERMIT UNIT REQUIREMENTS

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1. Particulate emissions shall not exceed 0.1 gr/dscf at the point of discharge. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Rule 407 (Kern)] Federally Enforceable Through Title V Permit
3. Unit shall be fired on PUC quality natural gas with a sulfur content of less than or equal to 0.017% by weight, or on liquefied propane gas (LPG) with a sulfur content equal to or less than 0.008% by weight. [District Rule 4702 and Rule 407 (Kern)] Federally Enforceable Through Title V Permit
4. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the engine is fired on natural gas that is not PUC-regulated, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM methods D1072, D3246, or D4084, or Double GC for H<sub>2</sub>S and mercaptans. [District Rule 2520] Federally Enforceable Through Title V Permit
6. The sulfur content of each delivery of liquefied petroleum gas being fired in the IC engine shall be determined using ASTM method D2784. An equivalent test method may be accepted with prior written District approval. [District Rule 2520] Federally Enforceable Through Title V Permit
7. If the engine is fired on natural gas that is not PUC-regulated, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit
8. IC engine shall be equipped with a controller which readily indicates air/fuel ratio setting within tolerance limits as recommended by the catalyst system supplier. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The engine shall be equipped with a positive crankcase ventilation (PCV) system. [District NSR Rule] Federally Enforceable Through Title V Permit
10. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
11. All exhaust emissions shall exit through catalytic converter. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Emissions from this IC engine shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 25 ppmv @ 15% O<sub>2</sub>, VOC - 125 ppmv as methane @ 15% O<sub>2</sub>, CO - 2000 ppmv @ 15% O<sub>2</sub>, PM<sub>10</sub> - 0.204 g/hp-hr, or SO<sub>x</sub> (as SO<sub>2</sub>) - 0.0145 g/hp-hr. [District NSR Rule and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. For reoccurring emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NO<sub>x</sub>, CO and VOC concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
14. Source testing to measure natural gas-combustion NO<sub>x</sub>, CO and VOC emissions from this engine shall be conducted not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit
15. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit
16. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100; VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. EPA approved alternative test methods may also be used to satisfy the source testing requirements of this permit with prior written approval from the APCO. [District Rule 4702] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub>, using a portable emission monitor that meets District specifications, at least once every calendar quarter (in which a source test is not performed and the engine is operated) or, if the engine is operated less than 120 calendar days in a calendar year, at least once during that calendar year (in which a source test is not performed and the engine is operated). 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 calendar quarter. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit
20. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, 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 performing the notification and testing required by this condition. [District Rule 4702] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit
22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (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] Federally Enforceable Through Title V Permit

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

23. The permittee 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, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
24. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702] Federally Enforceable Through Title V Permit
25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
26. The engine shall be operated and maintained in proper operating condition according to the manufacturer's specifications. [District Rule 4702] Federally Enforceable Through Title V Permit
27. The engine shall be operated such that the O2 sensor output voltage is within 0.6 volts DC - 1.0 volts DC as necessary to meet the air/fuel ratio setting. [40 CFR 64] Federally Enforceable Through Title V Permit
28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR 64.7] Federally Enforceable Through Title V Permit
29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64.9] Federally Enforceable Through Title V Permit
30. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64.7 and 64.8] Federally Enforceable Through Title V Permit
31. The permittee shall record the O2 sensor reading (in millivolts) on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
32. The portable analyzer shall be calibrated in accordance with manufacturer guidelines and District policy SSP-1810. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Upon detecting any excursion from the acceptable range of millivolt readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR 64.7] Federally Enforceable Through Title V Permit
34. Operator shall maintain supplier invoices for each delivery of liquefied petroleum gas including the corresponding certified sulfur content for a period of at least five years. [District Rule 2520] Federally Enforceable Through Title V Permit
35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the applicable requirements of SJVUAPCD Rule 4201, Kern County Rule 407, and the subsumed requirements of Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
36. Engine shall be equipped with an RPM indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
37. Maximum engine speed shall not exceed 1,100 rpm. [District NSR Rule] Federally Enforceable Through Title V Permit
38. By October 19, 2012, the owner/operator shall submit an Authority to Construct (ATC) permit application to the District to comply with 40 CFR 63, ZZZZ. [District Rule 2010] Federally Enforceable Through Title V Permit

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