



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



HEALTHY AIR LIVING™

APR 11 2013

Gerardo C. Rios, Chief
Permits Office
Air Division
U.S. EPA - Region IX
75 Hawthorne St
San Francisco, CA 94105

Re: **Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)
District Facility # S-4
Project # 1124511**

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authorities to Construct for Tehachapi-Cummings County Water, located at west of Tejon Ranch Rd, SW Section 14, T29S, R21E, Tejon Ranch, Tehachapi, which has been issued a Title V permit. Tehachapi-Cummings County Water is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. The project authorizes conversion of lean-burn IC engines from full-time to limited-use operation for Rule 4702 compliance, deletion of a Specific Limiting Condition (SLC), and addition of 40 CFR Part 63 Subpart ZZZZ conditions.

Enclosed is the engineering evaluation of this application, a copy of the current Title V permit, and proposed Authorities to Construct # S-4-5-10, '-6-9, '-7-9, and '-8-10 with Certificate of Conformity. After demonstrating compliance with the Authorities to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,



David Warner
Director of Permit Services

Enclosures
cc: Richard Edgehill, Permit Services

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
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APR 11 2013

John Martin
Tehachapi-Cummings County Water
PO Box 326
Tehachapi, CA 93561

**Re: Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)
District Facility # S-4
Project # 1124511**

Dear Mr. Martin:

Enclosed for your review is the District's analysis of your application for Authorities to Construct for the facility identified above. You have requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project authorizes conversion of lean-burn IC engines from full-time to limited-use operation for Rule 4702 compliance, deletion of a Specific Limiting Condition (SLC), and addition of 40 CFR Part 63 Subpart ZZZZ conditions.

After addressing any EPA comments made during the 45-day comment period, the Authorities to Construct will be issued to the facility with a Certificate of Conformity. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

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The project is not a NSR modification. More details regarding this are included in the Compliance Section.

BACT, offsets, and public notice requirements are not applicable.

Tehachapi-Cummings County Water received their Title V Permit on April 28, 2000. This modification can be classified as a Title V minor modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Tehachapi-Cummings County Water must apply to administratively amend their Title V permit.

Disposition of Outstanding ATCs

There are no outstanding ATCs for permit units S-4-5 through '-8. Current PTOs are included in **Attachment I**.

II. Applicable Rules

- Rule 2201 New and Modified Stationary Source Review Rule (4/12/11)
- Rule 2410 Prevention of Significant Deterioration (6/16/11) – **not applicable** – project results in a decrease in emissions
- Rule 2520 Federally Mandated Operating Permits (6/21/01)
- Rule 4001 New Source Performance Standards (4/14/99) – **not applicable** – no Subparts applicable to gas-fired IC engines
- Rule 4002 National Emission Standards for Hazardous Air Pollutants (5/20/04)
 - 40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Emissions (RICE)
- Rule 4101 Visible Emissions (2/17/05)
- Rule 4102 Nuisance (12/17/92)
- Rule 4201 Particulate Matter Concentration (12/17/92)
- Rule 4301 Fuel Burning Equipment (12/17/92)
- Rule 4701 Stationary Internal Combustion Engines – Phase 1 (8/21/03)
- Rule 4702 Stationary Internal Combustion Engines – Phase 2 (8/18/11)
- Rule 4801 Sulfur Compounds (12/17/92)
- CH&SC 41700 Health Risk Assessment
- CH&SC 42301.6 School Notice
- California Environmental Quality Act (CEQA)

III. Project Location

The project is located west of Tejon Ranch Rd., within the SW/4 of Section 14, Township 29S, Range 21E, at the Tejon Ranch (Plant #1) in Tehachapi, CA. The equipment is not located within 1,000 feet of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

Tehachapi-Cummings County Water District operates a pump station (Plant #1) to transport water from the California Aqueduct, near the Edmonston Pumping Plant, to the Tehachapi Area. Plant #1 has four lean burn IC engines (S-4-5 through '-8) used to power pumps for water transfer and one emergency IC engine to supply emergency power to the facility. Units S-4-5 through '-8 combust purchased natural gas from a utility and backup LPG if the purchased gas supply is interrupted.

In this project applicant is requesting converting the engines to limited use (< 4000 hr/yr operation) for compliance with Rule 4702.

V. Equipment Listing

Pre-Project Equipment Description:

- S-4-5-8: 1,200 BHP WAUKESHA MODEL 5790GL S/N C-10634-1 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP WITH TURBOCHARGER AND INTERCOOLER (ENGINE #1, PLANT #1)
- S-4-6-7: 1,070 BHP WAUKESHA MODEL 5790GL S/N 402992 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (IC ENGINE #2, PLANT #1)
- S-4-7-7: 1,070 BHP WAUKESHA MODEL 5790GL S/N 402993 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (ENGINE #3, PLANT #1)
- S-4-8-8: 1,070 BHP WAUKESHA MODEL 5790GL S/N C11010/1 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (ENGINE #4, PLANT #1)

Proposed Modification:

- S-4-5-10: MODIFICATION OF 1,200 BHP WAUKESHA MODEL 5790GL S/N C-10634-1 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP WITH TURBOCHARGER AND INTERCOOLER (ENGINE #1, PLANT #1): LIMIT OPERATING HOURS TO 4,000 HOURS/YEAR FOR RULE 4702 COMPLIANCE, REMOVE ANNUAL EMISSIONS SLC, AND ADD 40 CFR PART 63 SUBPART ZZZZ REMOTE IC ENGINE CONDITIONS
- S-4-6-9: MODIFICATION OF 1,070 BHP WAUKESHA MODEL 5790GL S/N 402992 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (IC ENGINE #2, PLANT #1): LIMIT OPERATING HOURS TO 4,000 HOURS/YEAR FOR RULE 4702 COMPLIANCE, REMOVE ANNUAL EMISSIONS SLC, AND ADD 40 CFR PART 63 SUBPART ZZZZ REMOTE IC ENGINE CONDITIONS
- S-4-7-9: MODIFICATION OF 1,070 BHP WAUKESHA MODEL 5790GL S/N 402993 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (ENGINE #3, PLANT #1): LIMIT OPERATING HOURS TO 4,000 HOURS/YEAR FOR RULE 4702 COMPLIANCE, REMOVE ANNUAL EMISSIONS SLC, AND ADD 40 CFR PART 63 SUBPART ZZZZ REMOTE IC ENGINE CONDITIONS
- S-4-8-10: MODIFICATION OF 1,070 BHP WAUKESHA MODEL 5790GL S/N C11010/1 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP

(ENGINE #4, PLANT #1): LIMIT OPERATING HOURS TO 4,000 HOURS/YEAR FOR RULE 4702 COMPLIANCE, REMOVE ANNUAL EMISSIONS SLC, AND ADD 40 CFR PART 63 SUBPART ZZZZ REMOTE IC ENGINE CONDITIONS

Post Project Equipment Description:

S-4-5-10: LIMITED USE 1,200 BHP WAUKESHA MODEL 5790GL S/N C-10634-1 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP WITH TURBOCHARGER AND INTERCOOLER (ENGINE #1, PLANT #1)

S-4-6-9: LIMITED USE 1,070 BHP WAUKESHA MODEL 5790GL S/N 402992 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (IC ENGINE #2, PLANT #1)

S-4-7-9: LIMITED USE 1,070 BHP WAUKESHA MODEL 5790GL S/N 402993 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (ENGINE #3, PLANT #1)

S-4-8-10: LIMITED USE 1,070 BHP WAUKESHA MODEL 5790GL S/N C11010/1 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (ENGINE #4, PLANT #1)

VI. Emission Control Technology Evaluation

The four full-time natural gas-fired IC engines are lean burn. Lean burn technology increases the volume of air in the combustion process and therefore increases the heat capacity of the mixture. This technology also incorporates improved swirl patterns to promote thorough air/fuel mixing. This in turn lowers the combustion temperature and reduces NO_x formation.

VII. General Calculations

A. Assumptions

Operating schedule of engine: 24 hours per day, 4000 hr/yr
Thermal efficiency of engine: commonly $\approx 30\%$

The project is not a NSR Modification and therefore calculations are not required. PE2, PE1, and QNEC will be calculated for inclusion in the PAS emissions profile.

B. Emission Factors

Project 1041223 (each engine)

Emission Factors		
Pollutant	(ppmvd @ 15% O ₂ or g/hp-hr)	Source(s)
NO _x	65 or 0.91	Current PTO
SO _x	0.011	"
PM ₁₀	0.05	"
CO	492 or 4.18	"
VOC	309 or 1.50	"

¹Converted using the District calculator for ppmv to g/Bhp-hr and g/Bhp-hr to ppmv conversion (see Appendix B).

$$^2\text{SO}_x \text{ EF} = \frac{[(\text{Sulfur Content lb-SO}_x/1,000,000 \text{ Btu}) \times 2,542.5 \text{ Btu/hp-hr} \times 453.6 \text{ g/lb}] \div \text{Efficiency of the Engine}}$$

$$^2\text{SO}_x \text{ EF} = \frac{[(0.00285 \text{ lb-SO}_x/1,000,000 \text{ Btu}_{in}) \times 2,542.5 \text{ Btu}_{in}/\text{hr-hp}_{in} \times 453.6 \text{ g/lb}]}{\div 0.30\text{hp}_{out}/\text{hp}_{in}}$$

$$^2\text{SO}_x \text{ EF} = 0.011 \text{ lb-SO}_x/\text{hp}_{out}\text{-hr}$$

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Sample Calculations

$$\begin{aligned} \text{PE2 lb-NO}_x/\text{day} &= (0.91 \text{ g-NO}_x/\text{hp-hr} \times 1,200 \text{ hp} \times 24 \text{ hr/day}) \div 453.6 \text{ g/lb} \\ &= 57.8 \text{ lb-NO}_x/\text{day} \end{aligned}$$

$$\begin{aligned} \text{PE2 lb-NO}_x/\text{day} &= (0.91 \text{ g-NO}_x/\text{hp-hr} \times 1,200 \text{ hp} \times 8760 \text{ hr/yr}) \div 453.6 \text{ g/lb} \\ &= 21,089 \text{ lb-NO}_x/\text{yr} \end{aligned}$$

S-4-5

Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Daily Hours of Operation (hrs/day)	Annual Hours of Operation (hrs/yr)	Daily PE1 (lb/day)	Annual PE1 (lb/yr)
NO _x	0.91	1200	24	8760	57.8	21,089
SO _x	0.0100	1200	24	8760	0.6	232
PM ₁₀	0.05	1200	24	8760	3.2	1,159
CO	4.18	1200	24	8760	265.4	96,870
VOC	1.50	1200	24	8760	95.2	34,762

S-4-6 through '8

Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Daily Hours of Operation (hrs/day)	Annual Hours of Operation (hrs/yr)	Daily PE1 (lb/day)	Annual PE1 (lb/yr)
NO _x	0.91	1070	24	8760	51.5	18,804
SO _x	0.0100	1070	24	8760	0.6	207
PM ₁₀	0.05	1070	24	8760	2.8	1,033
CO	4.18	1070	24	8760	236.6	86,376
VOC	1.50	1070	24	8760	84.9	30,996

2. Post Project Potential to Emit (PE2)

Sample Calculations

$$\begin{aligned} \text{PE2 lb-NO}_x/\text{day} &= (0.91 \text{ g-NO}_x/\text{hp-hr} \times 1,200 \text{ hp} \times 24 \text{ hr/day}) \div 453.6 \text{ g/lb} \\ &= 57.8 \text{ lb-NO}_x/\text{day} \end{aligned}$$

$$\begin{aligned} \text{PE2 lb-NO}_x/\text{day} &= (0.91 \text{ g-NO}_x/\text{hp-hr} \times 1,200 \text{ hp} \times 4000 \text{ hr/yr}) \div 453.6 \text{ g/lb} \\ &= 9,630 \text{ lb-NO}_x/\text{yr} \end{aligned}$$

S-4-5

Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Daily Hours of Operation (hrs/day)	Annual Hours of Operation (hrs/yr)	Daily PE2 (lb/day)	Annual PE2 (lb/yr)
NO _x	0.91	1200	24	4000	57.8	9,630
SO _x	0.0100	1200	24	4000	0.6	106
PM ₁₀	0.05	1200	24	4000	3.2	529
CO	4.18	1200	24	4000	265.4	44,233
VOC	1.50	1200	24	4000	95.2	15,873

S-4-6 through '8

Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Daily Hours of Operation (hrs/day)	Annual Hours of Operation (hrs/yr)	Daily PE2 (lb/day)	Annual PE2 (lb/yr)
NO _x	0.91	1070	24	4000	51.5	8,586
SO _x	0.0100	1070	24	4000	0.6	94
PM ₁₀	0.05	1070	24	4000	2.8	472
CO	4.18	1070	24	4000	236.6	39,441
VOC	1.50	1070	24	4000	84.9	14,153

Emissions profiles are included in **Attachment II**.

Quarterly Net Emissions Change (QNEC)

S-4-5

Quarterly NEC [QNEC]			
	PE2 (lb/yr)	PE1 (lb/yr)	QNEC (lb/qtr)
NO _x	9,630	21,089	-2865
SO _x	106	232	-32
PM ₁₀	529	1,159	-158
CO	44,233	96,870	-13159
VOC	15,873	34,762	-4722

S-4-6, '-7, and '-8 (each)

Quarterly NEC [QNEC]			
	PE2 (lb/yr)	PE1 (lb/yr)	QNEC (lb/qtr)
NO _x	8,586	18,804	-2555
SO _x	94	207	-28
PM ₁₀	472	1,033	-140
CO	39,441	86,376	-11734
VOC	14,153	30,996	-4211

VIII. Compliance

District Rule 2201 New and Modified Stationary Source Review Rule

The project does not meet the following criteria for a Modification, as defined in Section 3.26, and is therefore not subject to this rule.

- Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.
- Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.
- An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.
- Addition of any new emissions unit which is subject to District permitting requirements.
- A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

The IC engines have generally been operated less than 4000 hr/yr and therefore authorization of limited use status is not a change in method of operation. Combined post-project emissions from the four IC engines are less than the current SLC emissions (Condition #3 on the current PTOs) and therefore the SLC is no longer relevant.

Therefore the rule is not applicable.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit.

In accordance with Rule 2520, 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.

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment application.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

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

The Subpart is applicable to existing ICEs installed before June 12, 2006 (refer to FYI 309). The subject ICE is subject to the subpart.

In regards to 40 CFR Part 63 Subpart ZZZZ, the engine is a 4 stroke lean burn engine located at a sparsely populated area source of HAPs (applicant email (2-15-13 telephone conversation). Therefore, according to EPA's recent amendments to Subpart ZZZZ, the unit is subject only to management practices which include:

- Change oil and filter every 2,160 hours of operation or annually, whichever comes first;
- Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and
- Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.
- Operate and maintain the stationary RICE and after treatment control device (if any) according to the manufacturer's specifications.

- Conduct a review of the surrounding area every 12 months to determine if the nearby population has changed.

The following conditions have been added to the ATC:

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] N

On and after October 19, 2013, IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] N

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] N

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] N

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] N

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] N

On and after October 19, 2013, the permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] N

On and after October 19, 2013, the permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] N

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. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] N

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 Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base 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] N

Rule 4101 Visible Emissions

District Rule 4101, Section 5.0, indicates that no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour, which is dark or darker than Ringlemann 1 or equivalent to 20% opacity. The project is not expected to affect Rule compliance status.

Therefore, continued compliance with District Rule 4101 requirements is expected.

Rule 4102 Nuisance

Section 4.0 prohibits discharge of air contaminants, which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected. The project is not expected to affect Rule compliance status. Therefore, continued compliance with District Rule 4101 requirements is expected.

A permit condition will be listed on the permit as follows:

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 - Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

Since the applicant is not proposing an increase in fuel usage with this project, a health risk assessment is not necessary and no further risk analysis is required.

District Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot. The project is not expected to affect Rule compliance status.

Therefore, continued compliance with District Rule 4201 requirements is expected.

Rule 4301 Fuel Burning Equipment

The purpose of this rule is to limit the emissions of combustion contaminants from fuel burning equipment. This rule applies to the IC engine. The project is not expected to affect Rule compliance status.

Rule 4701 Internal Combustion Engines – Phase 1

Pursuant to Section 7.6.3.3.2 of Rule 4702, engines that are subject to Section 5.1 of Rule 4702, are no longer subject to Rule 4701.

Since the engine is subject to the requirements of Section 5.1 of Rule 4702, Rule 4701 is not applicable to these engines.

Rule 4702 Internal Combustion Engines – Phase 2

The purpose of this rule is to limit the emissions of nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines.

This rule applies to any internal combustion engine with a rated brake horsepower greater than 50 horsepower.

A limited-use engine is defined by the rule (in Section 3.24) as follows:

3.24 Limited Use Engine: an internal combustion engine that is limited by a permit condition to be operated no more than 4,000 hours per calendar year and provided the following requirements are met:

3.24.1 The engine is operated with an operating nonresettable elapsed time meter;

3.24.2 In lieu of an operating nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time, provided that the alternative is approved by the APCO and EPA and is allowed by the Permit-to-Operate. The operator must demonstrate that the alternative device, method, or technique is equivalent to using a nonresettable elapsed time meter;

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

3.24.4 The engine operator maintains records of the annual operating hours and makes the records available to the APCO upon request.

The proposed engine in this project is subject to the rule.

Section 5.1 applies to only Non-Agricultural Operations (Non-AO) IC engines up to 50 hp – not applicable.

Section 5.2 Table 1 requires that Non-AO spark-ignited IC engines > 50 hp meet the following emissions limits: 25 ppmv NO_x @ 15% O₂, 2000 ppmv CO @ 15% O₂ and 250 ppmv VOC @ 15% O₂ until demonstration of compliance with Table 2 pursuant to Section 7.5 compliance deadlines (Table 5 earliest 1/1/12 for ECP, 1/1/13 for ATC, and 1/1/14 full compliance). The Table 2 requirement for limited use IC engines is 65 ppmv NO_x @ 15% O₂, 2000 ppmv CO @ 15% O₂, and 750 ppmv VOC @ 15% O₂ by the applicable full compliance date in Table 5. The ATC includes conditions demonstrating compliance with these limits. Compliance with Section 5.2 is expected.

Section 5.3 applies to CEMs – not applicable

Sections 5.4 and 5.5 apply to compliance demonstration with percent emissions reductions-- not applicable

Section 5.6 applies to annual fee payment – not applicable

Section 5.7 applies to sulfur oxide (SOx) control requirements. As stated in the Emissions Factors section, the engine meets the Section 5.7.2 requirement of 5 gr S/100 scf.

Section 5.8 Monitoring Requirements

Requires the operator with an engine equipped with an external control device to either install, operate, and maintain continuous monitoring equipment (CEMs) for NO_x, CO, and oxygen, as identified in Rule 1080 (Stack Monitoring), or install, operate, and maintain APCO-approved alternate monitoring consisting of one or more of the following:

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

Since the applicant has selected periodic monitoring of emissions with a portable analyzer, the following conditions are listed on each permit to ensure compliance.

The permittee shall monitor and record the stack concentration of O₂ at least once every month and the stack concentration of NO_x and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. [District Rules 4701 and 4702] Y

If either the O₂ concentration or the NO_x concentration corrected to 15% O₂, as measured by the portable analyzer, is outside the permitted range, the permittee shall return the O₂ and/or NO_x to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue outside the permitted range after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702] Y

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 Rules 4701 and 4702] Y

The permittee shall maintain records of: (1) the date and time of O₂ and NO_x measurements, (2) the O₂ concentration in percent and the measured NO_x concentration corrected to 15% O₂, (3) make and model of

exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Y

Section 5.8.3 – requires alternate monitoring system to be approved by APCO-compliance expected

Sections 5.8.4 and 5.8.5 - apply to installed monitoring systems (CEMS)-not applicable

Section 5.8.6 requires that each engine shall have a non-resettable elapsed time meter. The applicant has proposed to install a non-resettable elapsed operating meter, and the following condition is listed on the current PTOs (and ATCs) to ensure compliance.

The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rules 4701 and 4702] Y

Section 5.8.7 requires for each engine, the operator implement the Inspection and Monitoring (I&M) plan, if any, submitted to and approved by the APCO pursuant to Section 6.5.

This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Y

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] Y

The permittee shall monitor and record the stack concentration of O₂ at least once every month and the stack concentration of NO_x and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. [District Rules 4701 and 4702] Y

Section 5.8.8 requires that for each engine, the operator collect data through the I&M plan in a form approved by the APCO.

Section 5.8.9 requires that a portable NO_x analyzer be used to take NO_x emission readings to verify compliance with the emission requirements of Section 5.1. The data must be taken and reported as approved by the APCO. This requirement is identified in the alternate monitoring section above and by inclusion of the following ATC condition:

The permittee shall monitor and record the stack concentration of O₂ at least once every month and the stack concentration of NO_x and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. [District Rules 4701 and 4702] Y

Section 5.9 Monitoring Requirements for Other Engines (not subject to Section 5.8) – not applicable

Section 5.10 SOx Emissions Monitoring Requirements

Section 5.10.1 requires an annual fuel sulfur analysis (applicable after compliance deadline in Table 7.5)

The ATCs require maintenance of natural gas bills.

24. The permittee shall maintain on file copies of natural gas bills. [District Rules 1070 and 2201] Y

Sections 5.10.2 and 5.10.3 – applicable only if SOx control device used – not proposed

Section 5.11– **not applicable** - unit is not PEER

Section 6.1 requires that the owner of an engine to submit to the APCO an emission control plan of all actions to be taken to satisfy the emission requirements of Section 5.1 and the compliance schedules of Section 7.0. The following condition is included on the ATC:

Permittee shall have on-site for inspection a District-approved Emissions Control Plan for compliance with District Rule 4702. [District Rule 4702] Y

Section 6.2 requires that the owner of an engine subject to the requirements of this rule shall maintain an engine operating log to demonstrate compliance with this rule. The following condition is listed on each permit to ensure compliance.

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 and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701 and 4702] Y

Section 6.2.2 requires that data collected be maintained for at least five years, shall be readily available, and made available to the APCO upon request. The following condition is listed on each permit to ensure compliance.

All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4702]

Section 6.3 identifies the source testing requirements. Engines retrofitted with exhaust control devices must comply with Sections 6.3.2 through 6.3.4 (source testing frequency, under normal conditions, source test protocol). The following conditions are listed on each permit to ensure compliance.

Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this unit shall be measured not less than once every 24 months, except as follows. Compliance with the NOx, CO, and VOC emission limits shall be demonstrated by submittal of annual emission test results from a unit or units that represents a specified group of units, provided all of the following requirements are satisfied: the units are located at the same stationary source; the units were produced by the same manufacturer, have the same model number

or other manufacturer's designation in common, and have the same rated capacity and operating specification; the units are operated and maintained in a similar manner; and at least 20% of the total number of units are tested during each annual test cycle. [District Rules 4701 and 4702] Y

Should any of the representative units exceed the required emission limits, or if the District notifies the operator that the criteria in for representative testing have not been fulfilled, each of the units in the group shall individually demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. [District Rule 4702] Y

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 Rules 4701 and 4702] Y

For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701 and 4702] Y

Section 6.3.5 applies to engines combusting PUC-quality gas only where reoccurring VOC testing is not required – applicant has selected not to enjoy this exemption (11/17/11 email)

Section 6.3.6 (representative source testing) allows for representative source testing from an engine or engines that represents a specified group of engines, provided the necessary requirements are met. Representative source testing has not been proposed.

Section 6.4 specifies the required testing methods. The following conditions are listed on each permit to ensure compliance.

The following test methods shall be used: NOx (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, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 4701 and 4702] Y

Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Y

{110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

Section 6.5 requires that the owner of an engine subject to the emission limits in Section 5.1 shall submit to the APCO for approval, an I&M plan that specifies all actions to be taken to satisfy the requirements of Section 5.6 and 6.5.

The following condition is listed on each permit to ensure compliance.

{3212} 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]

Section 7.0 Compliance schedules

Sections 7.1 and 7.2 are related to loss of exemption and permanent removal requirements - not applicable

Sections 7.3 and 7.4 apply to compression ignition engines – not applicable

Section 7.5 requires that non AO spark ignited ICEs operate in compliance with the dates in Table 5 after the listed compliance dates.

Section 8.0 Alternate Emissions Control Plan – not proposed

Section 9.0 Exhaust Control Certification Requirements – NSCR Certification not proposed

The engine is expected to be in continued compliance with Rule 4702.

Rule 4801 Sulfur Compounds

Rule 4801 requires that sulfur compound emissions (as SO₂) shall not exceed 0.2% by volume. The sulfur content of the gas combusted by the IC engine is limited to 1 gr S/100 scf. Continued compliance is expected.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its Environmental Review Guidelines (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The District performed an Engineering Evaluation (this document) for the proposed project and determined that all project specific emission units are exempt from BACT requirements. Furthermore, the District conducted a Risk Management Review and concludes that potential health impacts are less than significant.

Issuance of permits for emissions units not subject to BACT requirements and with a health impact less than significant is a matter of ensuring conformity with applicable District rules and regulations and does not require discretionary judgment or deliberation. Thus, the District concludes that this permitting action constitutes a ministerial approval. Section 21080 of the

Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. The issuance of ATCs S-5-10, '-6-9, '-7-9, and '-8-10 as recommended, subject to the permit conditions listed on the attached draft ATCs in **Attachment III**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-4-5, '-6, '-7, and '-8	3020-10-F	1000 - 5000 HP IC Engine	\$749.00

Attachments

- I. Current PTO S-4-8, '-5-7, '-6-7, and '-7-8
- II. Emissions Profiles
- III: Draft ATCs

ATTACHMENT I
Current PTOs

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4-5-8

EXPIRATION DATE: 08/31/2017

SECTION: 5 **TOWNSHIP:** 31S **RANGE:** 25E

EQUIPMENT DESCRIPTION:

1,200 BHP WAUKESHA MODEL 5790GL S/N C-10634-1 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP WITH TURBOCHARGER AND INTERCOOLER (ENGINE #1, PLANT #1)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [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 Rules 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
3. Total annual emissions from permit units S-0004-5, -6, -7, and -8 shall not exceed the following limits based on a 12-month rolling basis: 893 lb-SO_x/yr, 4,060 lb-PM₁₀/yr, 339,443 lb-CO/yr, or 121,810 lb-VOC/yr. Annual emissions from permit units S-0004-5, -6, -7, and -8 shall be calculated by using the following formula: Annual emissions = Total Hours of Operation based on a 12-month rolling basis (hrs/yr) x Emission Factor (g-pollutant/hp-hr) x Horsepower Rating (hp) ÷ 453.6 g/lb. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Utilization of this IC engine shall not exceed 1,200 hp, as determined by maintaining the water pumping rate for each unit at or below the following amounts: one IC engine/pump operating - 9.2 cfs, two IC engine/pumps operating - 8.6 cfs, and three or more IC engine/pumps operating - 8.1 cfs. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This unit shall only be fired on Public Utility Commission (PUC) regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emissions from this IC engine shall not exceed any of the following limits: 65 ppmvd NO_x @ 15% O₂, equivalent to 0.91 g-NO_x/hp-hr, 0.011 g-SO_x/hp-hr, 0.05 g-PM₁₀/hp-hr, 492 ppmvd CO @ 15% O₂, equivalent to 4.18 g-CO/hp-hr, or 309 ppmvd VOC @ 15% O₂, equivalent to 1.50 g-VOC/hp-hr. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
8. Source testing to measure natural gas-combustion NO_x, CO, and VOC emissions from this unit shall be measured not less than once every 24 months, except as follows. Compliance with the NO_x, CO, and VOC emission limits shall be demonstrated by submittal of annual emission test results from a unit or units that represents a specified group of units, provided all of the following requirements are satisfied: the units are located at the same stationary source; the units were produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated capacity and operating specification; the units are operated and maintained in a similar manner; and at least 20% of the total number of units are tested during each annual test cycle. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. Should any of the representative units exceed the required emission limits, or if the District notifies the operator that the criteria in for representative testing have not been fulfilled, each of the units in the group shall individually demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. [District Rule 4702] Federally Enforceable Through Title V Permit
10. 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
12. The following test methods shall be used: NOx (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, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
14. 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
15. The acceptable exhaust gas O2 range shall be established from manufacturer's information, or by source testing this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
16. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
18. 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
19. The permittee shall monitor and record the stack concentration of O2 at least once every month and the stack concentration of NOx and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O2 monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

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

20. If either the O₂ concentration or the NO_x concentration corrected to 15% O₂, as measured by the portable analyzer, is outside the permitted range, the permittee shall return the O₂ and/or NO_x to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue outside the permitted range after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
22. The permittee shall maintain records of: (1) the date and time of O₂ and NO_x measurements, (2) the O₂ concentration in percent and the measured NO_x concentration corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 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 and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain on file copies of natural gas bills. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
26. The owner/operator shall submit an Authority to Construct (ATC) permit application to the District to comply with 40 CFR 63 Subpart ZZZZ. [District Rule 2010] Federally Enforceable Through Title V Permit
27. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ. [40 CFR 63.6585 and 63.6595(a)] 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-4-6-7

EXPIRATION DATE: 08/31/2017

SECTION: 5 **TOWNSHIP:** 31S **RANGE:** 25E

EQUIPMENT DESCRIPTION:

1,070 BHP WAUKESHA MODEL 5790GL S/N 402992 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (IC ENGINE #2, PLANT #1)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Total annual emissions from permit units S-0004-5, -6, -7, and -8 shall not exceed the following limits based on a 12-month rolling basis: 893 lb-SO_x/yr, 4,060 lb-PM₁₀/yr, 339,443 lb-CO/yr, or 121,810 lb-VOC/yr. Annual emissions from permit units S-0004-5, -6, -7, and -8 shall be calculated by using the following formula: Annual emissions = Total Hours of Operation based on a 12-month rolling basis (hrs/yr) x Emission Factor (g-pollutant/hp-hr) x Horsepower Rating (hp) ÷ 453.6 g/lb. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Utilization of this IC engine shall not exceed 1,070 hp, as determined by maintaining the water pumping rate for each unit at or below the following amounts: one IC engine/pump operating - 8.2 cfs, two IC engine/pumps operating - 7.8 cfs, and three or more IC engine/pumps operating - 7.3 cfs. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This unit shall only be fired on Public Utility Commission (PUC) regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emissions from this IC engine shall not exceed any of the following limits: 65 ppmvd NO_x @ 15% O₂, equivalent to 0.91 g-NO_x/hp-hr, 0.011 g-SO_x/hp-hr, 0.05 g-PM₁₀/hp-hr, 492 ppmvd CO @ 15% O₂, equivalent to 4.18 g-CO/hp-hr, or 309 ppmvd VOC @ 15% O₂, equivalent to 1.50 g-VOC/hp-hr. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
8. Source testing to measure natural gas-combustion NO_x, CO, and VOC emissions from this unit shall be measured not less than once every 24 months, except as follows. Compliance with the NO_x, CO, and VOC emission limits shall be demonstrated by submittal of annual emission test results from a unit or units that represents a specified group of units, provided all of the following requirements are satisfied: the units are located at the same stationary source; the units were produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated capacity and operating specification; the units are operated and maintained in a similar manner; and at least 20% of the total number of units are tested during each annual test cycle. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. Should any of the representative units exceed the required emission limits, or if the District notifies the operator that the criteria in for representative testing have not been fulfilled, each of the units in the group shall individually demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. [District Rule 4702] Federally Enforceable Through Title V Permit
10. 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
12. The following test methods shall be used: NO_x (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, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
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14. 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
15. The acceptable exhaust gas O₂ range shall be established from manufacturer's information, or by source testing this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
16. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
17. 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
18. The permittee shall monitor and record the stack concentration of O₂ at least once every month and the stack concentration of NO_x and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
19. If either the O₂ concentration or the NO_x concentration corrected to 15% O₂, as measured by the portable analyzer, is outside the permitted range, the permittee shall return the O₂ and/or NO_x to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue outside the permitted range after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

20. 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
21. The permittee shall maintain records of: (1) the date and time of O₂ and NO_x measurements, (2) the O₂ concentration in percent and the measured NO_x concentration corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
22. 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 and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain on file copies of natural gas bills. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
24. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
25. The owner/operator shall submit an Authority to Construct (ATC) permit application to the District to comply with 40 CFR 63 Subpart ZZZZ. [District Rule 2010] Federally Enforceable Through Title V Permit
26. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ. [40 CFR 63.6585 and 63.6595(a)] 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-4-7-7

EXPIRATION DATE: 08/31/2017

SECTION: 5 **TOWNSHIP:** 31S **RANGE:** 25E

EQUIPMENT DESCRIPTION:

1,070 BHP WAUKESHA MODEL 5790GL S/N 402993 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (ENGINE #3, PLANT #1)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Total annual emissions from permit units S-0004-5, -6, -7, and -8 shall not exceed the following limits based on a 12-month rolling basis: 893 lb-SO_x/yr, 4,060 lb-PM₁₀/yr, 339,443 lb-CO/yr, or 121,810 lb-VOC/yr. Annual emissions from permit units S-0004-5, -6, -7, and -8 shall be calculated by using the following formula: Annual emissions = Total Hours of Operation based on a 12-month rolling basis (hrs/yr) x Emission Factor (g-pollutant/hp-hr) x Horsepower Rating (hp) ÷ 453.6 g/lb. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Utilization of this IC engine shall not exceed 1,070 hp, as determined by maintaining the water pumping rate for each unit at or below the following amounts: one IC engine/pump operating - 8.2 cfs, two IC engine/pumps operating - 7.8 cfs, and three or more IC engine/pumps operating - 7.3 cfs. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This unit shall only be fired on Public Utility Commission (PUC) regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emissions from this IC engine shall not exceed any of the following limits: 65 ppmvd NO_x @ 15% O₂, equivalent to 0.91 g-NO_x/hp-hr, 0.011 g-SO_x/hp-hr, 0.05 g-PM₁₀/hp-hr, 492 ppmvd CO @ 15% O₂, equivalent to 4.18 g-CO/hp-hr, or 309 ppmvd VOC @ 15% O₂, equivalent to 1.50 g-VOC/hp-hr. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
8. Source testing to measure natural gas-combustion NO_x, CO, and VOC emissions from this unit shall be measured not less than once every 24 months, except as follows. Compliance with the NO_x, CO, and VOC emission limits shall be demonstrated by submittal of annual emission test results from a unit or units that represents a specified group of units, provided all of the following requirements are satisfied: the units are located at the same stationary source; the units were produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated capacity and operating specification; the units are operated and maintained in a similar manner; and at least 20% of the total number of units are tested during each annual test cycle. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. Should any of the representative units exceed the required emission limits, or if the District notifies the operator that the criteria in for representative testing have not been fulfilled, each of the units in the group shall individually demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. [District Rule 4702] Federally Enforceable Through Title V Permit
10. 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
12. The following test methods shall be used: NO_x (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, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
14. 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
15. The acceptable exhaust gas O₂ range shall be established from manufacturer's information, or by source testing this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
16. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
17. 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
18. The permittee shall monitor and record the stack concentration of O₂ at least once every month and the stack concentration of NO_x and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
19. If either the O₂ concentration or the NO_x concentration corrected to 15% O₂, as measured by the portable analyzer, is outside the permitted range, the permittee shall return the O₂ and/or NO_x to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue outside the permitted range after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

20. 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
21. The permittee shall maintain records of: (1) the date and time of O₂ and NO_x measurements, (2) the O₂ concentration in percent and the measured NO_x concentration corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
22. 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 and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain on file copies of natural gas bills. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
24. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
25. The owner/operator shall submit an Authority to Construct (ATC) permit application to the District to comply with 40 CFR 63 Subpart ZZZZ. [District Rule 2010] Federally Enforceable Through Title V Permit
26. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ. [40 CFR 63.6585 and 63.6595(a)] 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-4-8-8

EXPIRATION DATE: 08/31/2017

SECTION: 5 **TOWNSHIP:** 31S **RANGE:** 25E

EQUIPMENT DESCRIPTION:

1,070 BHP WAUKESHA MODEL 5790GL S/N C11010/1 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (ENGINE #4, PLANT #1)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Total annual emissions from permit units S-0004-5, -6, -7, and -8 shall not exceed the following limits based on a 12-month rolling basis: 893 lb-SO_x/yr, 4,060 lb-PM₁₀/yr, 339,443 lb-CO/yr, or 121,810 lb-VOC/yr. Annual emissions from permit units S-0004-5, -6, -7, and -8 shall be calculated by using the following formula: Annual emissions = Total Hours of Operation based on a 12-month rolling basis (hrs/yr) x Emission Factor (g-pollutant/hp-hr) x Horsepower Rating (hp) ÷ 453.6 g/lb. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Utilization of this IC engine shall not exceed 1,070 hp, as determined by maintaining the water pumping rate for each unit at or below the following amounts: one IC engine/pump operating - 8.2 cfs, two IC engine/pumps operating - 7.8 cfs, and three or more IC engine/pumps operating - 7.3 cfs. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This unit shall only be fired on Public Utility Commission (PUC) regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emissions from this IC engine shall not exceed any of the following limits: 65 ppmvd NO_x @ 15% O₂, equivalent to 0.91 g-NO_x/hp-hr, 0.011 g-SO_x/hp-hr, 0.05 g-PM₁₀/hp-hr, 492 ppmvd CO @ 15% O₂, equivalent to 4.18 g-CO/hp-hr, or 309 ppmvd VOC @ 15% O₂, equivalent to 1.50 g-VOC/hp-hr. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
8. Source testing to measure natural gas-combustion NO_x, CO, and VOC emissions from this unit shall be measured not less than once every 24 months, except as follows. Compliance with the NO_x, CO, and VOC emission limits shall be demonstrated by submittal of annual emission test results from a unit or units that represents a specified group of units, provided all of the following requirements are satisfied: the units are located at the same stationary source; the units were produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated capacity and operating specification; the units are operated and maintained in a similar manner; and at least 20% of the total number of units are tested during each annual test cycle. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. Should any of the representative units exceed the required emission limits, or if the District notifies the operator that the criteria in for representative testing have not been fulfilled, each of the units in the group shall individually demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. [District Rule 4702] Federally Enforceable Through Title V Permit
10. 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
12. The following test methods shall be used: NOx (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, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
14. 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
15. The acceptable exhaust gas O2 range shall be established from manufacturer's information, or by source testing this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
16. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
17. 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
18. The permittee shall monitor and record the stack concentration of O2 at least once every month and the stack concentration of NOx and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O2 monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
19. If either the O2 concentration or the NOx concentration corrected to 15% O2, as measured by the portable analyzer, is outside the permitted range, the permittee shall return the O2 and/or NOx to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue outside the permitted range after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

20. 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
21. The permittee shall maintain records of: (1) the date and time of O₂ and NO_x measurements, (2) the O₂ concentration in percent and the measured NO_x concentration corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
22. 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 and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain on file copies of natural gas bills. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
24. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
25. The owner/operator shall submit an Authority to Construct (ATC) permit application to the District to comply with 40 CFR 63 Subpart ZZZZ. [District Rule 2010] Federally Enforceable Through Title V Permit
26. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ. [40 CFR 63.6585 and 63.6595(a)] Federally Enforceable Through Title V Permit

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

ATTACHMENT II

Emissions Profiles

Permit #: S-4-5-10	Last Updated
Facility: TEHACHAPI- CUMMINGS WATER DIST	02/19/2013 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	9630.0	106.0	529.0	44233.0	15873.0
Daily Emis. Limit (lb/Day)	57.8	0.6	3.2	265.4	95.2
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	-2864.0	-31.0	-157.0	-13159.0	-4722.0
Q2:	-2865.0	-31.0	-157.0	-13159.0	-4722.0
Q3:	-2865.0	-32.0	-158.0	-13159.0	-4722.0
Q4:	-2865.0	-32.0	-158.0	-13160.0	-4723.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-4-6-9	Last Updated
Facility: TEHACHAPI- CUMMINGS WATER DIST	02/19/2013 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	8586.0	94.0	472.0	39441.0	14153.0
Daily Emis. Limit (lb/Day)	51.5	0.6	2.8	236.6	84.9
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	-2554.0	-28.0	-140.0	-11733.0	-4210.0
Q2:	-2554.0	-28.0	-140.0	-11734.0	-4211.0
Q3:	-2555.0	-28.0	-140.0	-11734.0	-4211.0
Q4:	-2555.0	-29.0	-141.0	-11734.0	-4211.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-4-7-9	Last Updated
Facility: TEHACHAPI-CUMMINGS WATER DIST	02/19/2013 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	8586.0	94.0	472.0	39441.0	14153.0
Daily Emis. Limit (lb/Day)	51.5	0.6	2.8	236.6	84.9
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	-2554.0	-28.0	-140.0	-11733.0	-4210.0
Q2:	-2554.0	-28.0	-140.0	-11734.0	-4211.0
Q3:	-2555.0	-28.0	-140.0	-11734.0	-4211.0
Q4:	-2555.0	-29.0	-141.0	-11734.0	-4211.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-4-8-10	Last Updated
Facility: TEHACHAPI- CUMMINGS WATER DIST	02/19/2013 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	8586.0	94.0	472.0	39441.0	14153.0
Daily Emis. Limit (lb/Day)	51.5	0.6	2.8	236.6	84.9
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	-2554.0	-28.0	-140.0	-11733.0	-4210.0
Q2:	-2554.0	-28.0	-140.0	-11734.0	-4211.0
Q3:	-2555.0	-28.0	-140.0	-11734.0	-4211.0
Q4:	-2555.0	-29.0	-141.0	-11734.0	-4211.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

ATTACHMENT III
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-4-5-10

LEGAL OWNER OR OPERATOR: TEHACHAPI-CUMMINGS WATER DIST
MAILING ADDRESS: PO BOX 326
TEHACHAPI, CA 93561

LOCATION: WEST OF TEJON RANCH RD
TEJON RANCH, CA

SECTION: 5 **TOWNSHIP:** 31S **RANGE:** 25E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 1,200 BHP WAUKESHA MODEL 5790GL S/N C-10634-1 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP WITH TURBOCHARGER AND INTERCOOLER (ENGINE #1, PLANT #1): LIMIT OPERATING HOURS TO 4,000 HOURS/YEAR FOR RULE 4702 COMPLIANCE, REMOVE ANNUAL EMISSIONS SLC, AND ADD 40 CFR PART 63 SUBPART ZZZZ REMOTE IC ENGINE CONDITIONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rules 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
5. Utilization of this IC engine shall not exceed 1,200 hp, as determined by maintaining the water pumping rate for each unit at or below the following amounts: one IC engine/pump operating - 9.2 cfs, two IC engine/pumps operating - 8.6 cfs, and three or more IC engine/pumps operating - 8.1 cfs. [District Rule 2201] 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

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DAVID WARNER, Director of Permit Services

S-4-5-10 : Mar 5 2013 10:20AM -- EDGEHILR : Joint Inspection NOT Required

6. This unit shall only be fired on Public Utility Commission (PUC) regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. IC engine shall be operated no more than 4,000 hours per calendar year. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. Emissions from this IC engine shall not exceed any of the following limits: 65 ppmvd NO_x @ 15% O₂, equivalent to 0.91 g-NO_x/hp-hr, 0.011 g-SO_x/hp-hr, 0.05 g-PM₁₀/hp-hr, 492 ppmvd CO @ 15% O₂, equivalent to 4.18 g-CO/hp-hr, or 309 ppmvd VOC @ 15% O₂, equivalent to 1.50 g-VOC/hp-hr. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
10. Source testing to measure natural gas-combustion NO_x, CO, and VOC emissions from this unit shall be measured not less than once every 24 months, except as follows. Compliance with the NO_x, CO, and VOC emission limits shall be demonstrated by submittal of annual emission test results from a unit or units that represents a specified group of units, provided all of the following requirements are satisfied: the units are located at the same stationary source; the units were produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated capacity and operating specification; the units are operated and maintained in a similar manner; and at least 20% of the total number of units are tested during each annual test cycle. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
11. Should any of the representative units exceed the required emission limits, or if the District notifies the operator that the criteria in for representative testing have not been fulfilled, each of the units in the group shall individually demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. [District Rule 4702] Federally Enforceable Through Title V Permit
12. 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
13. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
14. The following test methods shall be used: NO_x (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, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
16. 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
17. The acceptable exhaust gas O₂ range shall be established from manufacturer's information, or by source testing this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
18. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
19. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. 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
21. The permittee shall monitor and record the stack concentration of O₂ at least once every month and the stack concentration of NO_x and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
22. If either the O₂ concentration or the NO_x concentration corrected to 15% O₂, as measured by the portable analyzer, is outside the permitted range, the permittee shall return the O₂ and/or NO_x to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue outside the permitted range after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
23. 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
24. The permittee shall maintain records of: (1) the date and time of O₂ and NO_x measurements, (2) the O₂ concentration in percent and the measured NO_x concentration corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
25. 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 and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
26. 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
27. On and after October 19, 2013, IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
28. 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
29. 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
30. 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

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31. 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
32. On and after October 19, 2013, the permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. On and after October 19, 2013, the permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. 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. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
35. 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 Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base 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
36. Permittee shall have on-site for inspection a District-approved Emissions Control Plan for compliance with District Rule 4702. [District Rule 4702] Federally Enforceable Through Title V Permit
37. The permittee shall maintain on file copies of natural gas bills. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
38. Permittee shall maintain records of annual operating time. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
39. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-4-6-9

LEGAL OWNER OR OPERATOR: TEHACHAPI-CUMMINGS WATER DIST

MAILING ADDRESS: PO BOX 326
TEHACHAPI, CA 93561

LOCATION: WEST OF TEJON RANCH RD
TEJON RANCH, CA

SECTION: 5 TOWNSHIP: 31S RANGE: 25E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 1,070 BHP WAUKESHA MODEL 5790GL S/N 402992 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (IC ENGINE #2, PLANT #1): LIMIT OPERATING HOURS TO 4,000 HOURS/YEAR FOR RULE 4702 COMPLIANCE, REMOVE ANNUAL EMISSIONS SLC, AND ADD 40 CFR PART 63 SUBPART ZZZZ REMOTE IC ENGINE CONDITIONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Utilization of this IC engine shall not exceed 1,070 hp, as determined by maintaining the water pumping rate for each unit at or below the following amounts: one IC engine/pump operating - 8.2 cfs, two IC engine/pumps operating - 7.8 cfs, and three or more IC engine/pumps operating - 7.3 cfs. [District Rule 2201] 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-4-6-9 - Mar 5 2013 10:20AM - EDGEHLR : Joint Inspection NOT Required

6. This unit shall only be fired on Public Utility Commission (PUC) regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. IC engine shall be operated no more than 4,000 hours per calendar year. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. Emissions from this IC engine shall not exceed any of the following limits: 65 ppmvd NO_x @ 15% O₂, equivalent to 0.91 g-NO_x/hp-hr, 0.011 g-SO_x/hp-hr, 0.05 g-PM₁₀/hp-hr, 492 ppmvd CO @ 15% O₂, equivalent to 4.18 g-CO/hp-hr, or 309 ppmvd VOC @ 15% O₂, equivalent to 1.50 g-VOC/hp-hr. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
10. Source testing to measure natural gas-combustion NO_x, CO, and VOC emissions from this unit shall be measured not less than once every 24 months, except as follows. Compliance with the NO_x, CO, and VOC emission limits shall be demonstrated by submittal of annual emission test results from a unit or units that represents a specified group of units, provided all of the following requirements are satisfied: the units are located at the same stationary source; the units were produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated capacity and operating specification; the units are operated and maintained in a similar manner; and at least 20% of the total number of units are tested during each annual test cycle. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
11. Should any of the representative units exceed the required emission limits, or if the District notifies the operator that the criteria in for representative testing have not been fulfilled, each of the units in the group shall individually demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. [District Rule 4702] Federally Enforceable Through Title V Permit
12. 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
13. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
14. The following test methods shall be used: NO_x (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, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
16. 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
17. The acceptable exhaust gas O₂ range shall be established from manufacturer's information, or by source testing this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. 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
20. The permittee shall monitor and record the stack concentration of O₂ at least once every month and the stack concentration of NO_x and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
21. If either the O₂ concentration or the NO_x concentration corrected to 15% O₂, as measured by the portable analyzer, is outside the permitted range, the permittee shall return the O₂ and/or NO_x to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue outside the permitted range after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of O₂ and NO_x measurements, (2) the O₂ concentration in percent and the measured NO_x concentration corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
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 and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
25. 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
26. On and after October 19, 2013, IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. 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
28. 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
29. 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

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CONDITIONS CONTINUE ON NEXT PAGE

30. 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
31. On and after October 19, 2013, the permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. 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. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. 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 Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base 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
35. Permittee shall have on-site for inspection a District-approved Emissions Control Plan for compliance with District Rule 4702. [District Rule 4702] Federally Enforceable Through Title V Permit
36. The permittee shall maintain on file copies of natural gas bills. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
37. Permittee shall maintain records of annual operating time. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
38. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-4-7-9

LEGAL OWNER OR OPERATOR: TEHACHAPI-CUMMINGS WATER DIST
MAILING ADDRESS: PO BOX 326
TEHACHAPI, CA 93561

LOCATION: WEST OF TEJON RANCH RD
TEJON RANCH, CA

SECTION: 5 **TOWNSHIP:** 31S **RANGE:** 25E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 1,070 BHP WAUKESHA MODEL 5790GL S/N 402993 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (ENGINE #3, PLANT #1): LIMIT OPERATING HOURS TO 4,000 HOURS/YEAR FOR RULE 4702 COMPLIANCE, REMOVE ANNUAL EMISSIONS SLC, AND ADD 40 CFR PART 63 SUBPART ZZZZ REMOTE IC ENGINE CONDITIONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Utilization of this IC engine shall not exceed 1,070 hp, as determined by maintaining the water pumping rate for each unit at or below the following amounts: one IC engine/pump operating - 8.2 cfs, two IC engine/pumps operating - 7.8 cfs, and three or more IC engine/pumps operating - 7.3 cfs. [District Rule 2201] 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

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DAVID WARNER, Director of Permit Services

S-4-7-9 : Mar 5 2013 10:20AM - EDGEHILR : Joint Inspection NOT Required

6. This unit shall only be fired on Public Utility Commission (PUC) regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. IC engine shall be operated no more than 4,000 hours per calendar year. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. Emissions from this IC engine shall not exceed any of the following limits: 65 ppmvd NO_x @ 15% O₂, equivalent to 0.91 g-NO_x/hp-hr, 0.011 g-SO_x/hp-hr, 0.05 g-PM₁₀/hp-hr, 492 ppmvd CO @ 15% O₂, equivalent to 4.18 g-CO/hp-hr, or 309 ppmvd VOC @ 15% O₂, equivalent to 1.50 g-VOC/hp-hr. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
10. Source testing to measure natural gas-combustion NO_x, CO, and VOC emissions from this unit shall be measured not less than once every 24 months, except as follows. Compliance with the NO_x, CO, and VOC emission limits shall be demonstrated by submittal of annual emission test results from a unit or units that represents a specified group of units, provided all of the following requirements are satisfied: the units are located at the same stationary source; the units were produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated capacity and operating specification; the units are operated and maintained in a similar manner; and at least 20% of the total number of units are tested during each annual test cycle. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
11. Should any of the representative units exceed the required emission limits, or if the District notifies the operator that the criteria in for representative testing have not been fulfilled, each of the units in the group shall individually demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. [District Rule 4702] Federally Enforceable Through Title V Permit
12. 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
13. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
14. The following test methods shall be used: NO_x (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, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
16. 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
17. The acceptable exhaust gas O₂ range shall be established from manufacturer's information, or by source testing this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. 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
20. The permittee shall monitor and record the stack concentration of O₂ at least once every month and the stack concentration of NO_x and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
21. If either the O₂ concentration or the NO_x concentration corrected to 15% O₂, as measured by the portable analyzer, is outside the permitted range, the permittee shall return the O₂ and/or NO_x to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue outside the permitted range after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of O₂ and NO_x measurements, (2) the O₂ concentration in percent and the measured NO_x concentration corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
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 and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
25. 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
26. On and after October 19, 2013, IC engine shall only be operated in a sparsely populated area as defined by 40 CFR Part 63, Subpart ZZZZ. Permittee shall conduct a review of the surrounding area every 12 months to determine if nearby population has changed. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
27. 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
28. 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
29. 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

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30. 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
31. On and after October 19, 2013, the permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. 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. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. 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 Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base 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
35. Permittee shall have on-site for inspection a District-approved Emissions Control Plan for compliance with District Rule 4702. [District Rule 4702] Federally Enforceable Through Title V Permit
36. The permittee shall maintain on file copies of natural gas bills. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
37. Permittee shall maintain records of annual operating time. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
38. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
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PERMIT NO: S-4-8-10

LEGAL OWNER OR OPERATOR: TEHACHAPI-CUMMINGS WATER DIST
MAILING ADDRESS: PO BOX 326
TEHACHAPI, CA 93561

LOCATION: WEST OF TEJON RANCH RD
TEJON RANCH, CA

SECTION: 5 **TOWNSHIP:** 31S **RANGE:** 25E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 1,070 BHP WAUKESHA MODEL 5790GL S/N C11010/1 NATURAL GAS-FIRED LEAN-BURN IC ENGINE POWERING A WATER PUMP (ENGINE #4, PLANT #1): LIMIT OPERATING HOURS TO 4,000 HOURS/YEAR FOR RULE 4702 COMPLIANCE, REMOVE ANNUAL EMISSIONS SLC, AND ADD 40 CFR PART 63 SUBPART ZZZZ REMOTE IC ENGINE CONDITIONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
5. Utilization of this IC engine shall not exceed 1,070 hp, as determined by maintaining the water pumping rate for each unit at or below the following amounts: one IC engine/pump operating - 8.2 cfs, two IC engine/pumps operating - 7.8 cfs, and three or more IC engine/pumps operating - 7.3 cfs. [District Rule 2201] 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

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DAVID WARNER, Director of Permit Services

S-4-8-10 : Mar 5 2013 10:20AM -- EDGEHLR : Joint Inspection NOT Required

6. This unit shall only be fired on Public Utility Commission (PUC) regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. IC engine shall be operated no more than 4,000 hours per calendar year. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. Emissions from this IC engine shall not exceed any of the following limits: 65 ppmvd NO_x @ 15% O₂, equivalent to 0.91 g-NO_x/hp-hr, 0.011 g-SO_x/hp-hr, 0.05 g-PM₁₀/hp-hr, 492 ppmvd CO @ 15% O₂, equivalent to 4.18 g-CO/hp-hr, or 309 ppmvd VOC @ 15% O₂, equivalent to 1.50 g-VOC/hp-hr. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
10. Source testing to measure natural gas-combustion NO_x, CO, and VOC emissions from this unit shall be measured not less than once every 24 months, except as follows. Compliance with the NO_x, CO, and VOC emission limits shall be demonstrated by submittal of annual emission test results from a unit or units that represents a specified group of units, provided all of the following requirements are satisfied: the units are located at the same stationary source; the units were produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated capacity and operating specification; the units are operated and maintained in a similar manner; and at least 20% of the total number of units are tested during each annual test cycle. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
11. Should any of the representative units exceed the required emission limits, or if the District notifies the operator that the criteria in for representative testing have not been fulfilled, each of the units in the group shall individually demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. [District Rule 4702] Federally Enforceable Through Title V Permit
12. 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
13. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
14. The following test methods shall be used: NO_x (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, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
16. 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
17. The acceptable exhaust gas O₂ range shall be established from manufacturer's information, or by source testing this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. 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
20. The permittee shall monitor and record the stack concentration of O₂ at least once every month and the stack concentration of NO_x and O₂ at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O₂ monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
21. If either the O₂ concentration or the NO_x concentration corrected to 15% O₂, as measured by the portable analyzer, is outside the permitted range, the permittee shall return the O₂ and/or NO_x to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue outside the permitted range after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 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 Rules 4701 and 4702] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of O₂ and NO_x measurements, (2) the O₂ concentration in percent and the measured NO_x concentration corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
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 and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
25. 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
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27. 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
28. 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
29. 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

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CONDITIONS CONTINUE ON NEXT PAGE

30. 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
31. On and after October 19, 2013, the permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
32. On and after October 19, 2013, the permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
33. 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. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
34. 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 Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base 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
35. Permittee shall have on-site for inspection a District-approved Emissions Control Plan for compliance with District Rule 4702. [District Rule 4702] Federally Enforceable Through Title V Permit
36. The permittee shall maintain on file copies of natural gas bills. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
37. Permittee shall maintain records of annual operating time. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
38. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

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