



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



HEALTHY AIR LIVING™

JUN 24 2014

Neil Peyron, Tribal Chairman
Tule River Indian Reservation - Tule River WWTP
340 N Reservation Rd
Porterville, CA 93257

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: S-8486
Project Number: S-1142664

Dear Mr. Peyron:

Enclosed for your review and comment is the District's analysis of Tule River Indian Reservation - Tule River WWTP's application for an Authority to Construct for a 762 bhp Tier 2 certified diesel-fired IC engine powering an emergency-standby electrical generator to be used at a new municipal waste-water treatment plant (WWTP). The engine will be located approximately 12 miles east of the City of Porterville at the following GPS coordinates: 36 01'00.11" N, 118 49'29.90" W.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice period, the District intends to issue the Authority to Construct. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Brian Clerico of Permit Services at (559) 230-5892.

Sincerely,

Arnaud Marjollet
Director of Permit Services

AM:bkc

Enclosures

cc: Mike Tollstrup, CARB (w/ enclosure) via email

Seyed Sadredin

Executive Director/Air Pollution Control Officer

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**San Joaquin Valley Air Pollution Control District
Authority to Construct
Application Review
Diesel-Fired Emergency Standby IC Engine**

Facility Name: Tule River Indian Reservation - Tule
River WWTP

Date: June 18, 2014

Mailing Address: 340 N Reservation Rd
Porterville, CA 93257

Engineer: Brian Clerico
Lead Engineer: George Heinen

Contact Person: Jacque Wallingford, Agent

Telephone: (209) 462-2292

Application #: S-8486-1-0

Project #: S-11422664

Complete: June 11, 2014

I. Proposal

The Tule River Indian Reservation – Tule River WWTP is proposing to install a 762 bhp Tier 2 certified diesel-fired IC engine powering an emergency-standby electrical generator to be used at a new municipal waste-water treatment plant (WWTP). For this size emergency-standby diesel IC engine, Tier 2 is the highest certification level without after-treatment and meets the highest applicable tier standard according to the District's Best Available Control Technology guideline (see Appendix E).

Assuming 24 hours of emergency operation in one day, the proposed engine will have a potential to emit of more than 100 pounds of NO_x in a day. New emissions units with a potential to emit of more than 100 pounds in a day trigger a 30-day public notification period under District Rule 2201. However, according to the applicant, the construction manager for the WWTP project had indicated they were waiting on the ATC to install the emergency-standby generator. To avoid delaying the start-up of the WWTP, which would postpone the expected environmental benefit of having the plant in operation, and to avoid the appearance of circumvention of the public notification requirement, the District and the applicant agreed to process two ATC's for this engine. ATC S-8486-1-0 (project S-1142053) was issued on 6/16/14 with a permit condition limiting the operation of the engine to a maximum of 16 hours in a day in order not to trigger public notification requirements (See Appendix G, ATC condition #13). ATC S-8486-1-1 (this project) will be processed without a limit on the number of hours the engine can operate in a day and will undergo a 30-day public notification.

The WWTP has a capacity of 0.15 - 0.3 million gallons per day. The District has previously exempted WWTP operations of 80 million gallons per day (C-1054539) as a low emitting unit; therefore, the proposed WWTP operation per se is not expected to require a permit. In addition, the applicant has indicated there will not be any boilers or flares at the WWTP.

The project location is on "fee" land owned by the Tule River Tribe. The U.S. EPA is the air permitting authority on Indian reservation and trust lands; however, in the case of fee land owned by a tribal authority, the California SIP and District rules apply according to EPA. Therefore, in the present case, the District is the air permitting authority. See Appendix A for guidance email from EPA on this question.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 4001 New Source Performance Standards (4/14/99)
Rule 4002 National Emission Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101 Visible Emissions (2/17/05)
Rule 4102 Nuisance (12/17/92)
Rule 4201 Particulate Matter Concentration (12/17/92)
Rule 4701 Internal Combustion Engines – Phase 1 (8/21/03)
Rule 4702 Internal Combustion Engines (11/14/13)
Rule 4801 Sulfur Compounds (12/17/92)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Title 17 CCR, Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary
Compression-Ignition (CI) Engines
California Environmental Quality Act (CEQA)
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387:
CEQA Guidelines

III. Project Location

The equipment will be located on land approximately 12 miles east of the City of Porterville at the following GPS coordinates: 36 01'00.11" N, 118 49'29.90" W.

The District has verified that the equipment is not located within 1,000 feet of the outer boundary 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

The emergency standby engine powers an electrical generator. Other than emergency standby operation, the engine may be operated up to 50 hours per year for maintenance and testing purposes.

V. Equipment Listing

Pre-Project Equipment Description:

S-8486-1-0: 762 BHP (INTERMITTENT) PERKINS SD500 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

Proposed Modification:

S-8486-1-1: MODIFICATION OF 762 BHP (INTERMITTENT) PERKINS SD500 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR: INCREASE THE MAXIMUM ALLOWED DAILY OPERATION FROM 16 HOURS TO 24 HOURS

Post Project Equipment Description:

S-8486-1-1: 762 BHP (INTERMITTENT) PERKINS SD500 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

VI. Emission Control Technology Evaluation

The applicant has proposed to install a Tier 2 certified diesel-fired IC engine that is fired on very low-sulfur diesel fuel (0.0015% by weight sulfur maximum).

The proposed engine meets the latest Tier certification requirements without after-treatment; therefore, the engine meets the applicable ARB/EPA emissions standards for diesel particulate matter, hydrocarbons, nitrogen oxides, and carbon monoxide (see Appendix C for a copy of the emissions data sheet).

The use of very low-sulfur diesel fuel (0.0015% by weight sulfur maximum) reduces SO_x emissions by over 99% from standard diesel fuel.

VII. General Calculations

If ATC S-8486-1-1 were treated as a straightforward modification of ATC S-8486-1-0, the modification would be to increase the permitted daily operating hours from 16 to 24 hours per day. But an increase in daily operation of 8 hours per day would not result in a potential emissions increase that would trigger public notification. The net result

would be no public notification for this emergency engine, which would appear to be a circumvention of the public notification requirement of District Rule 2201.

To avoid circumventing the public notification requirement, this engine will be treated as a new emission unit for purposes of District Rule 2201 calculations.

A. Assumptions

Emergency operating schedule: 24 hours/day
Non-emergency operating schedule: 50 hours/year
Density of diesel fuel: 7.1 lb/gal
EPA F-factor (adjusted to 60 °F): 9,051 dscf/MMBtu
Fuel heating value: 137,000 Btu/gal
BHP to Btu/hr conversion: 2,542.5 Btu/bhp-hr
Thermal efficiency of engine: commonly ≈ 35%
PM₁₀ fraction of diesel exhaust: 0.96 (CARB, 1988)

B. Emission Factors

See Appendix B for copy of emission factors supplied by the generator manufacturer.

Emission Factors		
Pollutant	Emission Factor (g/bhp-hr)	Source
NO _x	3.54**	EPA Emissions Certification Data from Generator Manufacturer
SO _x	0.0051	Mass Balance Equation Below*
PM ₁₀	0.05	EPA Emissions Certification Data from Generator Manufacturer
CO	1.06	EPA Emissions Certification Data from Generator Manufacturer
VOC	0.19**	EPA Emissions Certification Data from Generator Manufacturer

$$* \frac{0.000015 \text{ lb-S}}{\text{lb-fuel}} \times \frac{7.1 \text{ lb-fuel}}{\text{gallon}} \times \frac{2 \text{ lb-SO}_2}{1 \text{ lb-S}} \times \frac{1 \text{ gal}}{137,000 \text{ Btu}} \times \frac{1 \text{ bhp input}}{0.35 \text{ bhp out}} \times \frac{2,542.5 \text{ Btu}}{\text{bhp-hr}} \times \frac{453.6 \text{ g}}{\text{lb}} = 0.0051 \frac{\text{g-SO}_x}{\text{bhp-hr}}$$

**The engine has certified NO_x + VOC emissions of 3.73 g/bhp-hr. It will be assumed the NO_x + VOC emission factor is split 95% NO_x and 5% VOC (per the District's Carl Moyer program).

C. Calculations

1. Pre-Project Potential to Emit (PE1)

As discussed at the top of this section, the engine will be treated as a new unit so the PE1 = 0 for all pollutants.

2. Post-Project Potential to Emit (PE2)

The daily and annual PE are calculated according to the following formulas:

$$\text{Daily PE2} = \text{EF (g/bhp-hr)} \times \text{Engine Rating (bhp)} \times 24 \text{ hr/day} \times \text{lb/453.6 g}$$

$$\text{Annual PE2} = \text{EF (g/bhp-hr)} \times \text{Engine Rating (bhp)} \times 50 \text{ hr/year} \times \text{lb/453.6 g}$$

Daily PE2									
Pollutant	(g/bhp-hr)		bhp		hr/day		g/lb		lb/day
NO _x	3.54	x	762	x	24	÷	453.6	=	142.7
SO _x	0.0051	x		x		÷		=	0.2
PM ₁₀	0.05	x		x		÷		=	2.0
CO	1.06	x		x		÷		=	42.7
VOC	0.19	x		x		÷		=	7.7

Annual PE2									
Pollutant	(g/bhp-hr)		bhp		hr/yr		g/lb		lb/yr
NO _x	3.54	x	762	x	50	÷	453.6	=	297
SO _x	0.0051	x		x		÷		=	0
PM ₁₀	0.05	x		x		÷		=	4
CO	1.06	x		x		÷		=	89
VOC	0.19	x		x		÷		=	16

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site.

As discussed at the top of this section, the PE1 for S-8486-1 will be regarded as 0 for all pollutants. Since there are no other ATCs, PTOs, or ERCs associated with the Stationary Source; therefore, SSPE1 = 0 lb/yr for all pollutants.

4. Post-Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

As this is a new facility, the only emissions unit that contributes to the SSPE2 is the one proposed for this project, S-8486-1-1.

SSPE2					
Permit Unit	NO _x (lb/yr)	SO _x (lb/yr)	PM ₁₀ (lb/yr)	CO (lb/yr)	VOC (lb/yr)
S-8486-1-1	297	0	4	89	16
SSPE2	297	0	4	89	16

5. Major Source Determination

Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

Rule 2201 Major Source Determination (lb/year)					
Pollutant	SSPE1 (lb/yr)	SSPE2 (lb/yr)	Major Source Threshold (lb/yr)	Existing Major Source?	Becoming a Major Source?
NO _x	0	297	20,000	No	No
SO _x	0	0	140,000	No	No
PM ₁₀	0	4	140,000	No	No
CO	0	89	200,000	No	No
VOC	0	16	20,000	No	No

As seen in the table above, the facility is not an existing Major Source and also is not becoming a Major Source as a result of this project.

Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21(b)(1)(i). Therefore the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)							
	NO2	VOC	SO2	CO	PM	PM10	CO2e
Estimated Facility PE before Project Increase	0	0	0	0	0	0	23*
PSD Major Source Thresholds	100	100	100	100	100	100	100,000
PSD Major Source ? (Y/N)	N	N	N	N	N	N	N

*See Appendix C for CO2e calculation.

As shown above, the facility is not an existing major source for PSD for at least one pollutant. Therefore the facility is not an existing major source for PSD.

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to calculate the QNEC, and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

As shown in Section VII.C.5 above, the facility is not a Major Source for any pollutant.

Therefore BE = PE1.

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this facility is not a major source for any of the pollutants addressed in this project, this project does not constitute an SB 288 major modification.

8. Federal Major Modification

District Rule 2201, Section 3.18 states that Federal Major Modifications are the same as "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

Since this facility is not a Major Source for any pollutants, this project does not constitute a Federal Major Modification. Additionally, since the facility is not a major source for PM₁₀ (140,000 lb/year), it is not a major source for PM_{2.5} (200,000 lb/year).

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to pollutants for which the District is in attainment or for unclassified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO₂ (as a primary pollutant)
- SO₂ (as a primary pollutant)
- CO
- PM
- PM₁₀
- Greenhouse gases (GHG): CO₂, N₂O, CH₄, HFCs, PFCs, and SF₆

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not (See Section VII.C.5 of this document).

In the case the facility is an existing PSD Major Source, the second step of the PSD evaluation is to determine if the project results in a PSD significant increase.

In the case the facility is NOT an existing PSD Major Source but is an existing source, the second step of the PSD evaluation is to determine if the project, by itself, would be a PSD major source.

In the case the facility is new source, the second step of the PSD evaluation is to determine if this new facility will become a new PSD major Source as a result of the project and if so, to determine which pollutant will result in a PSD significant increase.

I. **Potential to Emit for New or Modified Emission Units vs PSD Major Source Thresholds**

As a screening tool, the project potential to emit from all new and modified units is compared to the PSD major source threshold, and if total project potential to emit from all new and modified units is below this threshold, no further analysis will be needed.

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore the following PSD Major Source thresholds are applicable.

PSD Major Source Determination: Potential to Emit (tons/year)							
	NO2	VOC	SO2	CO	PM	PM10	CO2e
Total PE from New and Modified Units	0	0	0	0	0	0	23*
PSD Major Source threshold	250	250	250	250	250	250	100,000
New PSD Major Source?	N	N	N	N	N	N	N

*See Appendix C for CO2e calculation.

As shown in the table above, the project potential to emit, by itself, does not exceed any of the PSD major source thresholds. Therefore Rule 2410 is not applicable and no further discussion is required.

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Detailed QNEC calculations are included in Appendix D.

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following*:

- Any new emissions unit with a potential to emit exceeding two pounds per day,
- The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- Any new or modified emissions unit, in a stationary source project, which results in an SB288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

Since this engine is a new emissions unit, the daily emissions are compared to the BACT thresholds in the following table:

New Emissions Unit BACT Applicability				
Pollutant	Daily Emissions for unit '1-0 (lb/day)	BACT Threshold (lb/day)	SSPE2 (lb/yr)	BACT Triggered?
NO _x	142.7	> 2.0	n/a	Yes
SO _x	0.2	> 2.0	n/a	No
PM ₁₀	2.0	> 2.0	n/a	No
CO	42.7	> 2.0 and SSPE2 ≥ 200,000 lb/yr	89	No
VOC	7.7	> 2.0	n/a	Yes

As shown above, BACT will be triggered for NO_x and VOC emissions from the engine for this project.

b. Relocation of emissions units – PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

c. Modification of emissions units – AIPE > 2 lb/day

As discussed in Section I above, there are no modified emissions units associated with this project. Therefore BACT is not triggered.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does not constitute an SB 288 and/or Federal Major Modification for NO_x emissions. Therefore BACT is not triggered for any pollutant.

2. BACT Guideline

BACT Guideline 3.1.1, which appears in Appendix E of this report, covers diesel-fired emergency IC engines.

3. Top Down BACT Analysis

Per District Policy APR 1305, Section IX, "A top-down BACT analysis shall be performed as a part of the Application Review for each application subject to the BACT requirements pursuant to the District's NSR Rule for source categories or classes covered in the BACT Clearinghouse, relevant information under each of the following steps may be simply cited from the Clearinghouse without further analysis."

Pursuant to the attached Top-Down BACT Analysis, which appears in Appendix E of this report, BACT is satisfied with:

NO_x: Latest applicable EPA Tier Certification level for horsepower range
VOC: Latest applicable EPA Tier Certification level for horsepower range

B. Offsets

Since emergency IC engines are exempt from the offset requirements of Rule 2201, per Section 4.6.2, offsets are not required for this engine, and no offset calculations are required.

C. Public Notification

1. Applicability

Public noticing is required for:

- New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- Any project which results in the offset thresholds being surpassed, and/or
- Any project with an SSPE of greater than 20,000 lb/year for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. As shown in Section VII.C.5 above, the SSPE2 is not greater than the Major Source threshold for any pollutant. Therefore, public noticing is not required for this project for new Major Source purposes.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements.

The PE2 for this new unit is compared to the daily PE Public Notice thresholds in the following table:

PE > 100 lb/day Public Notice Thresholds			
Pollutant	PE2 (lb/day)	Public Notice Threshold (lb/day)	Public Notice Triggered?
NO _x	142.7	100	Yes
SO _x	0.2	100	No
PM ₁₀	2.0	100	No
CO	42.7	100	No
VOC	7.7	100	No

Therefore, public noticing for PE > 100 lb/day purposes is required.

c. Offset Threshold

The SSPE1 and SSPE2 are compared to the offset thresholds in the following table.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x	0	297	20,000 lb/year	No
SO _x	0	0	54,750 lb/year	No
PM ₁₀	0	4	29,200 lb/year	No
CO	0	89	200,000 lb/year	No
VOC	0	16	20,000 lb/year	No

As detailed above, there were no thresholds surpassed with this project; therefore, public noticing is not required for offset purposes.

d. SSIPe > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPe of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPe = SSPE2 – SSPE1. The SSIPe is compared to the SSIPe Public Notice thresholds in the following table.

SSIPe Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPe (lb/year)	SSIPe Public Notice Threshold	Public Notice Required?
NO _x	297	0	297	20,000 lb/year	No
SO _x	0	0	0	20,000 lb/year	No
PM ₁₀	4	0	4	20,000 lb/year	No
CO	89	0	89	20,000 lb/year	No
VOC	16	0	16	20,000 lb/year	No

As demonstrated above, the SSIPes for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPe purposes is not required.

2. Public Notice Action

As discussed above, public noticing is required for this project for NOX emissions in excess of 100 lb/day. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

D. Daily Emissions Limits

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.16 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.16.1 and

3.16.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. Therefore, the following conditions will be listed on the ATC to ensure compliance:

- Emissions from this IC engine shall not exceed any of the following limits: 3.54 g-NOx/bhp-hr, 1.06 g-CO/bhp-hr, or 0.19 g-VOC/bhp-hr. [District Rule 2201, and 17 CCR 93115]
- Emissions from this IC engine shall not exceed 0.05 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
- Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required for emergency standby IC engines to demonstrate compliance with Rule 2201.

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification, and daily emission limit requirements of Rule 2201. As required by District Rule 4702, Internal Combustion Engines, this IC engine is subject to recordkeeping requirements. Recordkeeping requirements, in accordance with District Rule 4702, will be discussed in Section VIII, District Rule 4702, of this application review.

4. Reporting

No reporting is required to ensure compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA is conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis. Refer to Appendix F of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NO_x, CO, and SO_x. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NO_x, CO, or SO_x.

The proposed location is in a non-attainment area for the state's PM₁₀ as well as federal and state PM_{2.5} thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM₁₀ and PM_{2.5}.

Rule 2520 Federally Mandated Operating Permits

Since this facility's potential to emit does not exceed any major source thresholds of Rule 2201, this facility is not a major source, and Rule 2520 does not apply.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60.

The requirements of 40 CFR Part 60, Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines) covers stationary engines.

The District has not been delegated the authority to implement this NSPS regulation; therefore, no requirements shall be included on the permit.

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

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63.

The requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines) covers stationary engines.

The District has not been delegated the authority to implement NESHAP regulations for Area Source requirements for non-Major Sources; therefore, no requirements shall be included on the permit.

Rule 4101 Visible Emissions

Rule 4101 states 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 as dark

as, or darker than, Ringelmann 1 or 20% opacity. Therefore, the following condition will be listed on the ATC to ensure compliance:

- {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

Rule 4102 Nuisance

Rule 4102 states that no air contaminant shall be released into the atmosphere which causes a public nuisance. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, the following condition will be listed on the ATC to ensure compliance:

- {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 - Risk Management Policy for Permitting New and Modified Sources (dated 3/2/01) 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.

See Appendix F for a copy of the risk management review (RMR) memo. For emergency-diesel IC engines, the key variable in the risk analysis is the annual hours of non-emergency operation, which will be the same (i.e. 50 hours) for both ATC S-8486-1-0 (in project S-1142053) and ATC S-8486-1-1. The results of the RMR are summarized in the following table:

RMR Results				
Unit	Acute Hazard Index	Chronic Hazard Index	Cancer Risk	T-BACT Required?
S-8486-1-1	N/A	N/A	0.0227 in a million	No

As indicated in the table above, BACT for toxic air contaminants (T-BACT) is not required.

The following conditions will be listed on the ATC to ensure compliance with the RMR:

- Emissions from this IC engine shall not exceed 0.05 g-PM₁₀/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
- {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] N
- This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year [District Rule 4702 and 17 CCR 93115]

Rule 4201 Particulate Matter Concentration

Rule 4201 limits particulate matter emissions from any single source operation to 0.1 g/dscf, which, as calculated below, is equivalent to a PM₁₀ emission factor of 0.4 g-PM₁₀/bhp-hr.

$$0.1 \frac{\text{grain} - PM}{\text{dscf}} \times \frac{g}{15.43 \text{ grain}} \times \frac{1 \text{ Btu}_{in}}{0.35 \text{ Btu}_{out}} \times \frac{9,051 \text{ dscf}}{10^6 \text{ Btu}} \times \frac{2,542.5 \text{ Btu}}{1 \text{ bhp} - \text{hr}} \times \frac{0.96 \text{ g} - PM_{10}}{1 \text{ g} - PM} = 0.4 \frac{\text{g} - PM_{10}}{\text{bhp} - \text{hr}}$$

The new engine has a PM₁₀ emission factor less than 0.4 g/bhp-hr. Therefore, compliance is expected and the following condition will be listed on the ATC:

- {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

Rule 4701 Internal Combustion Engines – Phase 1

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

The proposed engine(s) are also subject to District Rule 4702, Internal Combustion Engines. Since emissions limits of District Rule 4702 and all other requirements are equivalent or more stringent than District Rule 4701 requirements, compliance with District Rule 4702 requirements will satisfy requirements of District Rule 4701.

Rule 4702 Internal Combustion Engines

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. The following table demonstrates how the proposed engine will comply with the requirements of District Rule 4702.

District Rule 4702 Requirements Emergency Standby IC Engines	Proposed Method of Compliance with District Rule 4702 Requirements
<p>Operation of emergency standby engines is limited to 100 hours or less per calendar year for non-emergency purposes, verified through the use of a non-resettable elapsed operating time meter.</p>	<p>The Air Toxic Control Measure for Stationary Compression Ignition Engines (Stationary ATCM) limits this engine maintenance and testing to 50 hours/year. Thus, the following permit condition will be included on the permit:</p> <ul style="list-style-type: none"> • This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year [District Rules 2201 and 4702, and 17 CCR 93115]
<p>Emergency standby engines cannot be used to reduce the demand for electrical power when normal electrical power line service has not failed, or to produce power for the electrical distribution system, or in conjunction with a voluntary utility demand reduction program or interruptible power contract.</p>	<p>The following conditions will be included on the permit:</p> <ul style="list-style-type: none"> • {3807} An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] • {3808} This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702]
<p>Install and operate a nonresettable elapsed time meter or approved alternate device, method, or technique.</p>	<p>The following condition will be included on the permit:</p> <ul style="list-style-type: none"> • {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
<p>Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.</p>	<p>The following condition will be included on the permit:</p> <ul style="list-style-type: none"> • {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]

District Rule 4702 Requirements Emergency Standby IC Engines	Proposed Method of Compliance with District Rule 4702 Requirements
<p>The owner/operator must monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.</p>	<p>The following condition will be included on the permit:</p> <ul style="list-style-type: none"> • {3478} During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
<p>Records of the total hours of operation of the emergency standby engine, type of fuel used, purpose for operating the engine, all hours of non-emergency and emergency operation, and support documentation must be maintained. All records shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request.</p>	<p>The following conditions will be included on the permit:</p> <ul style="list-style-type: none"> • {3496} The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] • {4263} The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115] • {3475} All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115]

Rule 4801 Sulfur Compounds

Rule 4801 requires that sulfur compound emissions (as SO₂) shall not exceed 0.2% by volume. Using the ideal gas equation, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = (n \times R \times T) \div P$$

n = moles SO₂

T (standard temperature) = 60 °F or 520 °R

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

$$\frac{0.000015 \text{ lb} - \text{S}}{\text{lb} - \text{fuel}} \times \frac{7.1 \text{ lb}}{\text{gal}} \times \frac{64 \text{ lb} - \text{SO}_2}{32 \text{ lb} - \text{S}} \times \frac{1 \text{ MMBtu}}{9,051 \text{ scf}} \times \frac{1 \text{ gal}}{0.137 \text{ MMBtu}} \times \frac{\text{lb} - \text{mol}}{64 \text{ lb} - \text{SO}_2} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} - \text{mol} \cdot ^\circ\text{R}} \times \frac{520^\circ\text{R}}{14.7 \text{ psi}} \times 1,000,000 = 1.0 \text{ ppmv}$$

Since 1.0 ppmv is ≤ 2,000 ppmv, this engine is expected to comply with Rule 4801. Therefore, the following condition will be listed on the ATC to ensure compliance:

- Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, 17 CCR 93115]

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.

Title 17 California Code of Regulations (CCR), Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines

Section 93115.6 applies to Emergency Standby Diesel-fueled CI Engines (>50 bhp). Engines installed after 1/1/05 are considered to be “new” units, which are subject to the requirements of Section 93115.6(a).

The following table shows how the engine complies with the applicable requirements:

Title 17 CCR Section 93115 Requirements for New Emergency IC Engines Powering Electrical Generators	Proposed Method of Compliance with Title 17 CCR Section 93115 Requirements
Emergency engines must be fired on CARB diesel fuel, or an approved alternative diesel fuel.	The applicant has proposed the use of CARB certified diesel fuel. The proposed permit condition, requiring the use of CARB certified diesel fuel, was included earlier in this evaluation.
The engine must emit diesel PM at a rate less than or equal to 0.15 g/bhp-hr or	The applicant has proposed the use of engine(s) that are certified to the latest EPA Tier Certification level for

Title 17 CCR Section 93115 Requirements for New Emergency IC Engines Powering Electrical Generators	Proposed Method of Compliance with Title 17 CCR Section 93115 Requirements
must meet the diesel PM standard, as specified in the Off-road compression ignition standards for off-road engines with the same maximum rated power (Title 13 CCR, Section 2423).	the applicable horsepower range, guaranteeing compliance with the emission standards of Subpart IIII. Additionally, the proposed diesel PM emissions rate is less than or equal to 0.15 g/bhp-hr.
The engine may not be operated more than 50 hours per year for maintenance and testing purposes.	<p>The following condition will be included on the permit:</p> <ul style="list-style-type: none"> • This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702 and 17 CCR 93115]
New stationary emergency standby diesel-fueled CI engines (> 50 bhp) must meet the standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression Ignition Engine Standards (title 13, CCR, section 2423).	The applicant has proposed the use of an engine that is certified to the latest applicable EPA Tier Certification level for the horsepower range.
Engines, with a PM10 emissions rate greater than 0.01 g/bhp-hr and located at schools, may not be operated for maintenance and testing whenever there is a school sponsored activity on the grounds. Additionally, engines located within 500 feet of school grounds may not be operated for maintenance and testing between 7:30 AM and 3:30 PM	The District has verified that this engine is not located within 500' of a school.
An owner or operator shall maintain monthly records of the following: emergency use hours of operation; maintenance and testing hours of operation; hours of operation for emission testing; initial start-up testing hours; hours of operation for all other uses; and the type of fuel used. All records shall be retained for a minimum of 36 months.	Permit conditions enforcing these requirements were shown earlier in the evaluation.

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (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.
- 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 the project qualifies for ministerial approval under the District's Guideline for Expedited Application Review (GEAR). 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. Pending a successful District Rule 2201 Public Noticing period, issue ATC S-8486-1-1 subject to the permit conditions on the attached draft ATC in Appendix H.

X. Billing Information

Billing Schedule			
Permit Number	Fee Schedule	Fee Description	Fee Amount
S-8486-1-1	3020-10-D	762 bhp IC engine	\$479.00

Appendices

- A. Guidance Email from EPA on Jurisdiction
- B. EPA Emissions Certification Data from Generator Manufacturer
- C. Green House Gas Calculations
- D. QNEC Calculations
- E. BACT Guideline and BACT Analysis
- F. Risk Management Review Memo
- G. Authority to Construct S-8486-1-0
- H. Draft Authority to Construct S-8486-1-1

Appendix A

Guidance Email from EPA on Jurisdiction

Brian Clerico

From: GLASS, GEOFFREY <GLASS.GEOFFREY@EPA.GOV>
Sent: Friday, May 30, 2014 1:46 PM
To: Brian Clerico; Comgen@aol.com
Subject: RE: Diesel Gen Set located at Tule River WWTP

Brian and Jacque:

I spoke with the Office of Regional Counsel yesterday. There are two significant issues related to air permitting at this location.

1. Because the project is on fee land, the California SIP and SJUAPCD regulations apply, however
2. Because the Tule River Tribe is a sovereign nation, SJVUAPCD cannot enforce against the tribe.

We believe that the simplest path forward is for San Joaquin to issue the permit and for EPA Region 9 to be the enforcement authority. I have contacted Kerri Vera at the tribe and she concurs.

Feel free to give me a call if you have any questions.

Thank you.

Geoffrey L. Glass
Environmental Engineer
Air Permits Office, EPA Region 9
415.972.3498

From: Brian Clerico [mailto:Brian.Clerico@valleyair.org]
Sent: Tuesday, May 27, 2014 9:58 AM
To: GLASS, GEOFFREY; Comgen@aol.com
Subject: RE: Diesel Gen Set located at Tule River WWTP

Thank you both for keeping me up to date. It's not a big deal, but we might have to send Jacque an "incompleteness letter" out this week or early next pending a decision on this, just because we have to respond to an application within 30 days of receipt.

From: GLASS, GEOFFREY [mailto:GLASS.GEOFFREY@EPA.GOV]
Sent: Tuesday, May 27, 2014 9:27 AM
To: Comgen@aol.com
Cc: Brian Clerico
Subject: RE: Diesel Gen Set located at Tule River WWTP

Thanks, Jacque. I just "poked" our legal team and let them know that installation of the generator is awaiting their determination.

There are probably some people here at EPA who don't realize that the time scale for minor NSR is much shorter than for major sources.

From: Comgen@aol.com [<mailto:Comgen@aol.com>]
Sent: Friday, May 23, 2014 10:00 AM
To: GLASS, GEOFFREY
Cc: brian.clerico@valleyair.org; Comgen@aol.com
Subject: Re: Diesel Gen Set located at Tule River WWTP

Just a follow-up about the permitting on the generator. Customer's contractor has informed us that the project is ready for the generator. We were hoping that you would have an answer by today about which way to go for permitting. Brian is ready to proceed if EPA agrees with SJVAPCD to do the permitting. Please let us know.

Thanks
Jacque Wallingford
Permitting
209-462-2292

In a message dated 5/20/2014 4:07:03 P.M. Pacific Daylight Time, GLASS.GEOFFREY@EPA.GOV writes:

Thanks for following up, Brian.

At this point, Jacque has shared some documents with me and I have passed them on to the Office of Regional Counsel. If I don't hear back in a few days I will ask to set up a meeting and discuss it with them.

From: Brian Clerico [<mailto:Brian.Clerico@valleyair.org>]
Sent: Tuesday, May 20, 2014 3:52 PM
To: GLASS, GEOFFREY; Comgen@aol.com
Subject: RE: Diesel Gen Set located at Tule River WWTP

Geoffrey

Just following up to see if you learned anything else.

From: GLASS, GEOFFREY [<mailto:GLASS.GEOFFREY@EPA.GOV>]
Sent: Wednesday, May 14, 2014 11:08 AM
To: Brian Clerico; Comgen@aol.com
Subject: RE: Diesel Gen Set located at Tule River WWTP

Jacque and Brian:

I brought up this issue at our weekly Permits Office meeting and I hope I can state the issues more clearly now.

1. On reservation and trust land the federal government (EPA) is the air permitting authority unless a tribe has a delegation agreement or a tribal implementation plan.
2. On fee land, the federal government (EPA) may be the air permitting authority. EPA may assert authority if the tribe requests us to do so and there is a compelling reason why the regulatory authority should be the federal government and not the state.

I will be speaking further with our attorneys. Once I do, I will report back and let you know if we need to have a more detailed discussion.

Thank you

Geoffrey L. Glass

**Environmental Engineer
Air Permits Office, EPA Region 9**

415.972.3498

From: Brian Clerico [<mailto:Brian.Clerico@valleyair.org>]

Sent: Wednesday, May 14, 2014 9:03 AM

To: Comgen@aol.com

Cc: GLASS, GEOFFREY

Subject: RE: Diesel Gen Set located at Tule River WWTP

Jacque,

Speaking with Geoffrey Glass at EPA, he said explained to me that if the project is not on tribal land, for example *fee* or *trust* land, then it appears the tribe can choose the permitting authority if everyone is in agreement. Do you know, given the option, whether the tribal authority would prefer SJVAPCD or EPA as the air permitting authority here? Feel free to call Geoffrey Glass at (415) 972-3498 to discuss the matter or get further clarification.

In terms of the pluses and minuses of EPA vs. SJVAPCD, I am not sure what the permitting fees are with EPA, if any, but with SJVAPCD, we bill a project processing fee (\$106/hr), which for this project could be as much as \$1,000 (we would send you a written estimate upon deeming the project complete), then there is an annual Permit to Operate fee for the engine, which for this size would be \$479/year. Of course, there are other aspects to maintaining a permit than cost, but having this cost information may help the tribal authority decide.

From: Comgen@aol.com [mailto:Comgen@aol.com]
Sent: Tuesday, May 13, 2014 6:19 PM
To: Brian Clerico
Subject: Re: Diesel Gen Set located at Tule River WWTP

Brian:

I had a issue with this. The Assessors map state the land is on Lowe Ranch Property which is owned in fee simple by the tribe. This makes it not on Reservation Land. But according to the Environmental Assessment Report Figure 6 after page 3-15 it shows the proposed site within Tule River Reservation Boundary.

I checked with Kerri Vera who is Director - Department of Environmental Protection - Tule River Tribal Council and she states that this generator is not on Indian Reservation land and must be permitted.

So does this generator needed to be permitted with SJVAPCD?

Jacque Wallingford

209-462-2292

In a message dated 5/13/2014 3:04:26 P.M. Pacific Daylight Time, Brian.Clerico@valleyair.org writes:

Jacque

Will the engine be located on Tribal Land? I'll double check here, but it might be EPA who is the permitting authority if that is the case.

From: Comgen@aol.com [<mailto:Comgen@aol.com>]
Sent: Tuesday, May 13, 2014 2:01 PM
To: Brian Clerico
Subject: Re: Diesel Gen Set located at Tule River WWTP

Brian:

Just letting you know that I got this email and message and will get this information back to you.

Thanks

Jacque Wallingford

209-462-2292

In a message dated 5/13/2014 8:36:40 A.M. Pacific Daylight Time, Brian.Clerico@valleyair.org writes:

Hello Jacque

I am working on the air permit application for the diesel gen set. As part of the evaluation, we do what is called an ambient air quality analysis for projects requiring public notification. It involves dispersion modeling of the stack emissions and seeing the effect of those emissions on the ambient air quality at the fence line of the facility. If you already have such a drawing showing the location of the engine relative to the facility fence line, that would be great. Or, I scanned in a copy of the facility site plan, which I've attached, that I thought you could indicate on it where the engine would be and send back to me.

Thank you

Brian Clerico

Air Quality Engineer

San Joaquin Valley Air Pollution Control District

1990 E. Gettysburg Ave., Fresno CA 93726

tel: (559) 230-5892

fax: (559) 230-6061



From: Centralcopier
Sent: Tuesday, May 13, 2014 8:25 AM
To: Brian Clerico
Subject: Attached Image

Appendix B

EPA Emissions Certification Data from Generator Manufacturer

EXHAUST EMISSIONS DATA

STATEMENT OF EXHAUST EMISSIONS 2014 PERKINS DIESEL FUELED GENERATOR

The measured emissions values provided here are proprietary to Generac and it's authorized dealers. This information may only be disseminated upon request, to regulatory governmental bodies for emissions permitting purposes or to specifying organizations as submittal data when expressly required by project specifications, and shall remain confidential and not open to public viewing. This information is not intended for compilation or sales purposes and may not be used as such, nor may it be reproduced without the expressed written permission of Generac Power Systems, Inc. The data provided shall not be meant to include information made public by Generac.

Generator Model:	SD/MD500	EPA Certificate Number:	ECPXL15.2NZS-009
kW _e Rating:	500	CARB Certificate Number:	Not Applicable
Engine Family:	ECPXL15.2NZS	SCAQMD CEP Number:	545376
Engine Model:	2506C-E15TAG3	Emission Standard Category:	Tier 2
Rated Engine Power (BHP)*:	762	Certification Type:	Stationary Emergency CI (40 CFR Part 60 Subpart IIII)
Fuel Consumption (gal/hr)*:	31.2		
Aspiration:	Turbo/Aftercooled		
Rated RPM:	1800		

*Engine Power and Fuel Consumption are declared by the Engine Manufacturer of Record and the U.S. EPA.

Emissions based on engine power of specific Engine Model. (These values are actual composite weighted exhaust emissions results over the EPA 5-mode test cycle.)			
CO	NOx + NMHC	PM	
1.43	5.02	0.07	Grams/kW-hr
1.06	3.73	0.05	Grams/bhp-hr

- The stated values are actual exhaust emission test measurements obtained from an engine representative of the type described above.
- Values based on 5-mode testing are official data of record as submitted to regulatory agencies for certification purposes. Testing was conducted in accordance with prevailing EPA protocol, which is typically accepted by SCAQMD and other regional authorities.
- No emissions values provided above are to be construed as guarantees of emission levels for any given Generac generator unit.
- Generac Power Systems, Inc. reserves the right to revise this information without prior notice.
- Consult state and local regulatory agencies for specific permitting requirements.
- The emission performance data supplied by the equipment manufacturer is only one element required toward completion of the permitting and installation process. State and local regulations may vary on a case-by-case basis and local agencies must be consulted by the permit application/equipment owner prior to equipment purchase or installation. The data supplied herein by Generac Power Systems cannot be construed as a guarantee of installability of the generating set.

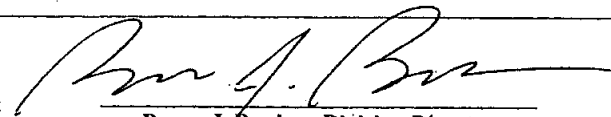


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2014 MODEL YEAR
CERTIFICATE OF CONFORMITY
WITH THE CLEAN AIR ACT OF 1990

OFFICE OF TRANSPORTATION
AND AIR QUALITY
ANN ARBOR, MICHIGAN 48105

Certificate Issued To: Caterpillar Inc.
(U.S. Manufacturer or Importer)
Certificate Number: ECPXL15.2NZS-009

Effective Date:
06/20/2013
Expiration Date:
12/31/2014


Byron J. Bunker, Division Director
Compliance Division

Issue Date:
06/20/2013
Revision Date:
N/A

Model Year: 2014
Manufacturer Type: Original Engine Manufacturer
Engine Family: ECPXL15.2NZS

Mobile/Stationary Indicator: Stationary
Emissions Power Category: 560<kW<=2237
Fuel Type: Diesel
After Treatment Devices: No After Treatment Devices Installed
Non-after Treatment Devices: Electronic Control, Engine Design Modification

Pursuant to Section 111 and Section 213 of the Clean Air Act (42 U.S.C. sections 7411 and 7547) and 40 CFR Part 60, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following engines, by engine family, more fully described in the documentation required by 40 CFR Part 60 and produced in the stated model year.

This certificate of conformity covers only those new compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 60 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 60.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 1068 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 60. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void *ab initio* for other reasons specified in 40 CFR Part 60.

This certificate does not cover engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

Appendix C

Green House Gas Calculations

Greenhouse Gas Emissions from IC Engines

CO2e Emission Factors for IC Engines						
Fuel Type	IC Engine Efficiency (%)	EF CO2e (kg/MMBtu)	EF CO2e (kg/bhp-hr _{out})	EF CO2e (metric ton/bhp-hr _{out})	EF CO2e (lb/bhp-hr _{out})	EF CO2e (short ton/bhp-hr _{out})
Diesel Fuel	35%	74.209	0.53984905	0.000539849	1.190163427	0.000595082
LPG	35%	63.229	0.45997272	0.000459973	1.014066264	0.000507033
Natural Gas	35%	53.072	0.386083477	0.000386083	0.851168368	0.000425584
Gasoline (motor)	35%	70.469	0.51264163	0.000512642	1.130181333	0.000565091

Emission Factors source: 40 CFR Part 98 and California ARB Regulation for the Mandatory Reporting of GHG Emissions

Calculations:

$$\text{CO}_2\text{e (metric ton/yr)} = \text{Horsepower (bhp)} \times \text{Annual Operating Hours (hr/yr)} \times \text{EF CO}_2\text{e (metric ton/bhp-hrout)}$$
$$\text{CO}_2\text{e (short ton/yr)} = \text{Horsepower (bhp)} \times \text{Annual Operating Hours (hr/yr)} \times \text{EF CO}_2\text{e (short ton/bhp-hr}_{\text{out}})$$

For CEQA purposes, use CO₂e (metric ton/yr)

For PSD purposes, use CO₂e (short ton/yr)

CO2e Emissions From IC Engines								
Permit Unit(s)	Horsepower (bhp)	Annual Operating Hours (hr/yr)	Fuel Type	# of Engines in Row if More Than 1 (e.g 2, 3, 4, ...)	EF CO2e (metric ton/bhp-hr _{out})	EF CO2e (short ton/bhp-hr _{out})	CO2e (metric ton/yr)	CO2e (short ton/yr)
S-8486-1-0	762	50	Diesel Fuel	1	0.000539849	0.000595082	21	23
Total							21	23

Appendix D

QNEC Calculations

Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

$QNEC = PE2 - PE1$, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr

PE2 = Post-Project Potential to Emit for each emissions unit, lb/qtr

PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr

Since this is a new unit, $PE1 = 0$ for all pollutants. Thus, $QNEC = PE2$ (lb/qtr).

Using the PE2 (lb/yr) values calculated in Section VII.C.2, Quarterly PE2 is calculated as follows:

$$PE2_{\text{quarterly}} = PE2 \text{ (lb/yr)} \div 4 \text{ quarters/year} = QNEC$$

QNEC		
Pollutant	PE2 Total (lb/yr)	Quarterly PE2 (lb/qtr)
NO _x	297	74
SO _x	0	0
PM ₁₀	4	1
CO	89	22
VOC	16	4

Appendix E

BACT Guideline and Top-Down Analysis

San Joaquin Valley Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 3.1.1 Last Update: 7/10/2009 Emergency Diesel IC Engine

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
NOx	Latest EPA Tier Certification level for applicable horsepower range*		
CO	Latest EPA Tier Certification level for applicable horsepower range*		
PM10	0.15 g/hp-hr or the Latest EPA Tier Certification level for applicable horsepower range, whichever is more stringent. (ATCM)		
SOX	Very low sulfur diesel fuel (15 ppmw sulfur or less)		
VOC	Latest EPA Tier Certification level for applicable horsepower range*		

**Note: for emergency engines $50 \leq \text{bhp} < 75$, Tier 4 Interim certification is the requirement; for emergency engines $75 \leq \text{bhp} < 750$, Tier 3 certification is the requirement; for emergency engines ≥ 750 bhp, Tier 2 certification is the requirement.*

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Top Down BACT Analysis for the Emergency IC Engine

BACT Guideline 3.1.1 (July 10, 2009) applies to emergency diesel IC engines. In accordance with the District BACT policy, information from that guideline will be utilized without further analysis.

1. BACT Analysis for NO_x and VOC Emissions:

a. Step 1 - Identify all control technologies

BACT Guideline 3.1.1 identifies only the following option:

- *Latest EPA Tier Certification level for applicable horsepower range*

To determine the latest applicable Tier level, the following EPA and state regulations were consulted:

- 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
- 40 CFR Part 89 – Control of Emissions from New and In-Use Nonroad Compression – Ignition Engines
- 40 CFR Part 1039 – Control of Emissions from New and In-Use Nonroad Compression-Ignition Engines
- Title 17 CCR, Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines

40 CFR Parts 89 and 1039, which apply only to nonroad engines, do not directly apply because the proposed emergency engine(s) do not meet the definition of a nonroad engine. Therefore, only Title 17 CCR, Section 93115 applies directly to the proposed emergency engine.

Title 17 CCR, Section 93115.6(a)(3)(A) (CARB stationary diesel engine ATCM) applies to emergency standby diesel-fired engines and requires that such engines be certified to the emission levels in Table 1 (below).

Table 1: Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines g/bhp-hr (g/kW-hr)					
Maximum Engine Power	Tier	Model Year(s)	PM	NMHC+NOx	CO
50 ≤ HP < 75 (37 ≤ kW < 56)	2	2007	0.15 (0.20)	5.6 (7.5)	3.7 (5.0)
	4i	2008+		3.5 (4.7)	
75 ≤ HP < 100 (56 ≤ kW < 75)	2	2007	0.15 (0.20)	5.6 (7.5)	3.7 (5.0)
	3	2008+		3.5 (4.7)	
100 ≤ HP < 175 (75 ≤ kW < 130)	3	2007	0.15 (0.20)	3.0 (4.0)	3.7 (5.0)
		2008+			
175 ≤ HP < 300 (130 ≤ kW < 225)	3	2007	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)
		2008+			
300 ≤ HP < 600 (225 ≤ kW < 450)	3	2007	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)
		2008+			
600 ≤ HP ≤ 750 (450 ≤ kW ≤ 560)	3	2007	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)
		2008+			
HP > 750 (kW > 560)	2	2007	0.15 (0.20)	4.8 (6.4)	2.6 (3.5)
		2008+			

Additionally, 40 CFR Subpart IIII establishes emission standards for emergency diesel IC engines. These emission standards are the same as those specified in the CARB ATCM, except for engines rated greater than or equal to 50 and less than 75 hp. For such IC engines, the CARB ATCM is more stringent.

Therefore, the most stringent applicable emission standards are those listed in the CARB ATCM (Table 1).

For IC engines rated greater than or equal to 50 hp and less than 75 hp the the higherst Tier required is Tier 4i. For IC engines rated greater than or equal to 75 hp and less than 750 hp the highest Tier required is Tier 3. *For engines rated equal to or greater than 750 hp the highest Tier required is Tier 2.*

Also, please note that neither the state ATCM nor the Code of Federal Regulations require the installation of IC engines meeting a higher Tier standard than those listed above for emergency applications, due to concerns regarding the effectiveness of the exhaust emissions controls during periods of short-term operation (such as testing operational readiness of an emergency engine).

The proposed engine is rated at 762 hp. Therefore, the applicable control technology option is EPA Tier 2 certification.

b. Step 2 - Eliminate technologically infeasible options

The control option listed in Step 1 is not technologically infeasible.

c. Step 3 - Rank remaining options by control effectiveness

No ranking needs to be done because there is only one control option listed in Step 1.

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the only control option remaining under consideration. Therefore, a cost effectiveness analysis is not required.

e. Step 5 - Select BACT

BACT for NO_x and VOC will be the use of an EPA Tier 2 certified engine. The applicant is proposing such a unit. Therefore, BACT will be satisfied.

Appendix F

Risk Management Review Memo

San Joaquin Valley Air Pollution Control District

Risk Management Review

To: Brian Clerico - Permit Services
From: Cheryl Lawler - Permit Services
Date: June 4, 2014
Facility Name: Tule River Indian Reservation
Location: 32701 Indian Reservation Drive, Porterville
Application #(s): S-8486-1-0
Project #: S-1142053

A. RMR SUMMARY

RMR Summary			
Categories	Emergency Diesel ICE (Unit 1-0)	Project Totals	Facility Totals
Prioritization Score	N/A ¹	N/A ¹	>1
Acute Hazard Index	N/A ²	N/A ²	0.00
Chronic Hazard Index	N/A ²	N/A ²	0.00
Maximum Individual Cancer Risk	2.27E-08	2.27E-08	2.27E-08
T-BACT Required?	No		
Special Permit Conditions?	Yes		

- 1 Prioritization for this unit was not conducted since it has been determined that all diesel-fired IC engines will result in a prioritization score greater than 1.0.
- 2 Acute and Chronic Hazard Indices were not calculated since there is no risk factor, or the risk factor is so low that the risk has been determined to be insignificant for this type of unit.

Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

Unit 1-0

1. The PM10 emissions rate shall not exceed **0.05 g/bhp-hr** based on US EPA certification using ISO 8178 test procedure. [District Rules 2201]
2. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] N
3. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed **50 hours** per calendar year. [District Rule 4702 and 17 CCR 93115]

B. RMR REPORT

I. Project Description

Technical Services received a request on June 2, 2014, to perform an Ambient Air Quality Analysis (AAQA) and a Risk Management Review (RMR) for a 762 bhp emergency diesel IC engine powering an electrical generator.

II. Analysis

Diesel exhaust emissions and the Cancer Risk from the engine were calculated using the District approved DICE spreadsheet.

The following parameters were used for the review:

Analysis Parameters			
PM ₁₀ g/hp-hr	0.05	Source Type	Point
BHP	762	Stack Diameter (m)	0.13
Closest Receptor (m)	648	Stack Height (m)	3.51
Max Hours per Year	50	Stack Gas Temp. (K)	823
Location Type	Rural	Stack Gas Velocity (m/s)	147.35

Technical Services also performed modeling for criteria pollutants NO_x, SO_x, and PM₁₀, as well as the RMR. The emission rates used for criteria pollutant modeling were 313 lbs/yr NO_x, 0 lbs/yr SO_x, and 4 lbs/yr PM₁₀.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

Diesel ICE	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	NA ¹	X	NA ¹	X	X
NO _x	NA ¹	X	X	X	Pass
SO _x	NA ¹	NA ¹	X	NA ¹	Pass
PM ₁₀	X	X	X	NA ¹	Pass ²

*Results were taken from the attached PSD spreadsheet.

¹The project is an intermittent source as defined in APR-1920. In accordance with APR-1920, compliance with short-term (i.e., 1-hour, 3-hour, 8-hour, and 24-hour) standards is not required.

²The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

III. Conclusions

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

The Cancer Risk associated with the operation of the proposed diesel IC engine is **2.27E-08**, which is less than the 1 in a million threshold. In accordance with the District's Risk Management Policy, the project is approved **without** Toxic Best Available Control Technology (T-BACT).

To ensure that human health risks will not exceed District allowable levels; the permit conditions listed on Page 1 of this report must be included for the proposed unit.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

Attachments

RMR Request Form
Project Location Maps
DICE Spreadsheet
AAQA Results
Facility Summary
AERMOD Non-Regulatory Option Checklist

Appendix G

Authority to Construct S-8486-1-0



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



AUTHORITY TO CONSTRUCT

PERMIT NO: S-8486-1-0

ISSUANCE DATE: 06/16/2014

LEGAL OWNER OR OPERATOR: TULE RIVER INDIAN RESERVATION-TULE RIVER

MAILING ADDRESS: 340 N RESERVATION ROAD
PORTERVILLE, CA 93257

LOCATION: 36°01'00.11"N - 118°49'29.90"W
PORTERVILLE, CA 93257

EQUIPMENT DESCRIPTION:

762 BHP (INTERMITTENT) PERKINS SD500 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE
POWERING AN ELECTRICAL GENERATOR

CONDITIONS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
7. Emissions from this IC engine shall not exceed any of the following limits: 3.54 g-NOx/bhp-hr, 1.06 g-CO/bhp-hr, or 0.19 g-VOC/bhp-hr. [District Rule 2201, and 17 CCR 93115]
8. Emissions from this IC engine shall not exceed 0.05 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]

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

for Arnaud Marjollet, Director of Permit Services

S-8486-1-0 Jun 16 2014 11:19AM - CLERICOB : Joint Inspection NOT Required

9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
10. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
11. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702]
12. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702]
13. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine shall not exceed 16 hours in any one day. [District Rule 2201]
14. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702 and 17 CCR 93115]
15. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]
16. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
17. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115]

Appendix H

Draft Authority to Construct S-8486-1-1

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-8486-1-1

LEGAL OWNER OR OPERATOR: TULE RIVER INDIAN RESERVATION-TULE RIVER
MAILING ADDRESS: 340 N RESERVATION ROAD
PORTERVILLE, CA 93257

LOCATION: 36°01'00.11"N - 118°49'29.90"W
PORTERVILLE, CA 93257

EQUIPMENT DESCRIPTION:

MODIFICATION OF 762 BHP (INTERMITTENT) PERKINS SD500 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY
STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR: INCREASE THE MAXIMUM ALLOWED DAILY
OPERATION FROM 16 HOURS TO 24 HOURS

CONDITIONS

1. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
2. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
7. Emissions from this IC engine shall not exceed any of the following limits: 3.54 g-NOx/bhp-hr, 1.06 g-CO/bhp-hr, or 0.19 g-VOC/bhp-hr. [District Rule 2201, and 17 CCR 93115]

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

Arnaud Marjollet, Director of Permit Services
S-8486-1-1 : Jun 23 2014 9:54AM - CLERIC08 : Joint Inspection NOT Required

8. Emissions from this IC engine shall not exceed 0.05 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
9. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
10. {3478} During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
11. {3807} An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702]
12. {3808} This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702]
13. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201 and 4702, and 17 CCR 93115]
14. {3496} The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]
15. {4263} The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
16. {3475} All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115]

DRAFT