



JUL 27 2010

Mike Wilet  
City of Patterson  
P O Box 667  
Patterson, CA 95363

**Re: Notice of Preliminary Decision - Authority to Construct  
Project Number: N-1084483**

Dear Mr. Wilet:

Enclosed for your review and comment is the District's analysis of City of Patterson's application for an Authority to Construct for the permitting of a 519 bhp diesel-fired emergency engine powering an electric generator, located at 300 feet west of the intersection of Orange and Locust Avenues, Patterson.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Fred Cruz of Permit Services at (209) 557-6456.

Sincerely,

David Warner  
Director of Permit Services

DW: FJC/cm

Enclosures

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

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-8000 FAX: (559) 230-6061

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



JUL 27 2010

Mike Tollstrup, Chief  
Project Assessment Branch  
Stationary Source Division  
California Air Resources Board  
PO Box 2815  
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Authority to Construct**  
**Project Number: N-1084483**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of City of Patterson's application for an Authority to Construct for the permitting of a 519 bhp diesel-fired emergency engine powering an electric generator, located at 300 feet west of the intersection of Orange and Locust Avenues, Patterson.

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Modesto Bee

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
AN AUTHORITY TO CONSTRUCT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Authority to Construct to City of Patterson for the permitting of a 519 bhp diesel-fired emergency engine powering an electric generator, at 300 feet west of the intersection of Orange and Locust Avenues, Patterson.

The analysis of the regulatory basis for this proposed action, Project #N-1084483, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 4800 ENTERPRISE WAY, MODESTO, CA 95356.**

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

Facility Name: City of Patterson Date: July 19, 2010  
Mailing Address: P O Box 667 Engineer: Fred Cruz  
Patterson, CA 95363 Lead Engineer: Nick Peirce  
Contact Person: Mike Willet  
Telephone: (209) 895-8063  
FAX: (209) 895-8069  
Application No: N-7343-2-0  
Project No: N-1084483  
Complete: May 17, 2010

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**I. PROPOSAL:**

The City of Patterson submitted an Authority to Construct application for a 519 bhp diesel-fired emergency standby internal combustion (IC) engine powering an electrical generator. The applicant installed this emergency engine in 2003 without first obtaining an Authority to Construct permit.

**II. APPLICABLE RULES:**

Rule 2201 New and Modified Stationary Source Review Rule (9/21/2006)  
Rule 2520 Federally Mandated Operating Permits (6/21/2001)  
Rule 4001 New Source Performance Standards (4/14/1999)  
Rule 4101 Visible Emissions (2/17/2005)  
Rule 4102 Nuisance (12/17/1992)  
Rule 4201 Particulate Matter Concentration (12/17/1992)  
Rule 4701 Stationary Internal Combustion Engines – Phase 1 (8/21/2003)  
Rule 4702 Stationary Internal Combustion Engines – Phase 2 (1/18/2007)  
Rule 4801 Sulfur Compounds (12/17/1992)  
CH&SC 41700 Health Risk Assessment  
CH&SC 42301.6 School Notice  
Title 13 California Code of Regulations (CCR), Section 2423 – Exhaust Emission Standards and Test Procedures, Off-Road Compression-Ignition Engines and Equipment  
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 project is located 300 feet west of the intersection of Orange and Locust Avenues, Patterson, CA. 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. See attached site map.

**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:**

**N-7343-2-0: 519 BHP CATERPILLAR MODEL 3406C DIESEL-FIRED  
EMERGENCY IC ENGINE (TIER 2 CERTIFIED) POWERING AN  
ELECTRIC GENERATOR**

**VI. EMISSION CONTROL TECHNOLOGY EVALUATION:**

The engine is equipped with:

- Turbocharger
- Intercooler/aftercooler
- Injection timing retard (or equivalent per District Policy SSP-1805, dated 8/14/1996)
- Positive Crankcase Ventilation (PCV) or 90% efficient control device
- This engine is required to be, and is UL certified
- Catalytic particulate filter
- Very Low (0.0015%) sulfur diesel

The emission control devices/technologies and their effect on diesel engine emissions detailed below are from *Non-catalytic NO<sub>x</sub> Control of Stationary Diesel Engines*, by Don Koeberlein, CARB.

The turbocharger reduces the NO<sub>x</sub> emission rate from the engine by approximately 10% by increasing the efficiency and promoting more complete burning of the fuel.

The intercooler/aftercooler functions in conjunction with the turbocharger to reduce the inlet air temperature. By reducing the inlet air temperature, the peak combustion temperature is lowered, which reduces the formation of thermal NO<sub>x</sub>. NO<sub>x</sub> emissions are reduced by approximately 15% with this control technology.

The PCV system reduces crankcase VOC and PM<sub>10</sub> emissions by at least 90% over an uncontrolled crankcase vent.

The use of very low-sulfur diesel fuel (0.0015% by weight sulfur maximum) reduces SO<sub>x</sub> emissions by over 99% from standard diesel fuel.

**VII. GENERAL 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%  
 Fuel rate: 26.5 gal/hr @ 100% load (as provided by the applicant)  
 EPA F-Factor (adjusted to 60 °F) is 9,051 dscf/MMBtu  
 PM<sub>10</sub> fraction of diesel exhaust is 96% (CARB, 1988)

**B. EMISSION FACTORS:**

The applicant provided the following emission factors for the proposed Caterpillar engine, as certified by CARB on December 16, 2002.

CARB-Certified Emission Factors			
Engine	Exhaust (g/kW-hr)		
	NMHC + NO <sub>x</sub>	CO	PM
3406 C	5.8	1.5	0.15

Emission factors for CO and PM may be readily calculated from the above entries.

$$EF_{CO} = (1.5 \text{ g/kW-hr}) \times (0.746 \text{ kW/bhp}) = 1.12 \text{ g/bhp-hr}$$

$$EF_{PM10} = (0.15 \text{ g/kW-hr}) \times (0.746 \text{ kW/bhp}) \times (0.96) = 0.11 \text{ g/bhp-hr}$$

VOC and NO<sub>x</sub> emissions are lumped together as non-methane hydrocarbons + NO<sub>x</sub> on the engine emissions certification. They may be separated into VOC and NO<sub>x</sub> components using the procedure described in EPA Document "Exhaust and Crankcase Emission Factors for Non-road Engine Modeling – Compression Ignition" dated April 2004. The proposed engine is a Tier 2 engine with a maximum data plate power output of 519 bhp, so the applicable combined and pollutant-specific emission factors are:

<b>NO<sub>x</sub> and VOC Emissions</b>			
Horsepower Range (bhp)	Combined Standard, NO <sub>x</sub> + VOC (g/bhp-hr)	Estimated NO <sub>x</sub> Emissions (g/bhp-hr)	Estimated VOC Emissions (g/bhp-hr)
	Tier 2	Tier 2	Tier 2
≤ 300 to < 600	4.8	4.2	0.6

$$EF_{VOC} = (5.8 \text{ g/kW-hr}) \times (0.746 \text{ kW/bhp}) \times [(0.6 \text{ g/bhp-hr}) \div (4.8 \text{ g/bhp-hr})]$$

$$EF_{VOC} = 0.54 \text{ g/bhp-hr}$$

$$EF_{NOx} = (5.8 \text{ g/kW-hr}) \times (0.746 \text{ kW/bhp}) \times [(4.2 \text{ g/bhp-hr}) \div (4.8 \text{ g/bhp-hr})]$$

$$EF_{NOx} = 3.79 \text{ g/bhp-hr}$$

The emission factor for SO<sub>x</sub> may be calculated based on the current CARB standard for diesel sulfur content, which is 15 ppm by weight.

Emission factors for this engine are summarized in the following table.

$$SO_x: \quad 0.0015\% \text{ sulfur in fuel} \times 7.1 \text{ lb fuel/gal fuel} \times (2 \text{ lb SO}_2 \text{ in exhaust/1 lb S in fuel}) \times (1 \text{ gal/137,000 Btus}) \times (1 \text{ hp input/0.35 hp out}) \times 2,542.5 \text{ Btu/hp-hr} \times 453.6 \text{ g/lb} = 0.005 \text{ g SO}_x/\text{hp-hr}$$

Emission factors for this engine are summarized in the following table.

<b>Emission Factors</b>					
EF (g/bhp-hr)	Pollutant				
	NO <sub>x</sub>	PM <sub>10</sub>	SO <sub>x</sub>	CO	VOC
	3.79	0.11	0.005	1.12	0.54

**C. CALCULATIONS:**

**1. Pre-Project Emissions (PE1):**

Since this is a new emissions unit, PE1 = 0.

**2. Post Project PE (PE2):**

The potential to emit for this emergency IC engine is based on the maximum operating capacity of the engine for 24 hours per day. The following calculation for NO<sub>x</sub> emissions is representative of emission calculations for all pollutants. Annual emissions are based on 50 hours per year for non-emergency operation.

$$NO_x: \quad 3.79 \text{ g/hp-hr} \times 519 \text{ hp} \times \text{lb}/453.6 \text{ g}$$

$$NO_x: \quad \underline{4.34 \text{ lb/hr, 104.1 lb/day, 217 lb/yr}}$$

$$CO: \quad \underline{1.28 \text{ lb/hr, 30.8 lb/day, 64 lb/yr}}$$

$$VOC: \quad \underline{0.62 \text{ lb/hr, 14.8 lb/day, 31 lb/yr}}$$

PM<sub>10</sub>: 0.13 lb/hr, 3.0 lb/day, 6 lb/yr  
SO<sub>x</sub>: 0.006 lb/hr, 0.1 lb/day, 0.3 lb/yr<sup>1</sup>

	NO <sub>x</sub>	CO	VOC	PM <sub>10</sub>	SO <sub>x</sub>
<b>Daily PE</b>	104.1	30.8	14.8	3.0	0.1
<b>Annual PE</b>	217	64	31	6	0

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

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid ATCs or PTOs at the Stationary Source and the quantity of Emission Reduction Credits (ERCs) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site. Since this is a new emissions unit at a new facility, SSPE1 is equal to zero for all pollutants. Note, ATC application N-7343-1-0 has been cancelled.

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

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid ATCs or PTOs, except for emissions units proposed to be shut down as part of the Stationary Project, at the Stationary Source and the quantity of Emission Reduction Credits (ERCs) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

<b>SSPE2 (lb/yr)</b>					
<b>Permit Number</b>	<b>NO<sub>x</sub></b>	<b>VOC</b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>x</sub></b>
N-7343-2-0	217	31	64	6	0
<b>Total</b>	<b>217</b>	<b>31</b>	<b>64</b>	<b>6</b>	<b>0</b>
Major Source Thresholds	50,000	50,000	200,000	140,000	140,000
Existing Major Source?	No	No	No	No	No

**5. Major Source Determination:**

Pursuant to Section 3.24 of District Rule 2201, a Major Source is a stationary source with post project emissions or a Post Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the following threshold values. However, Section 3.24.2 states, "for the purposes of determining major source status, the SSPE2 shall not include the quantity of emission reduction credits (ERC) which have been banked since September

<sup>1</sup> Per District Policy APR 1105, Use of Significant Figures, annual emissions less than 0.5 are set to zero.



19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site." This facility does not contain ERCs which have been banked at the source; therefore, SSPE2 does not have to be adjusted.

Major Source Determination					
Pollutant	SSPE1 (lb/yr)	SSPE2 (lb/yr)	Major Source Threshold (lb/yr)	Existing Major Source?	Becoming a Major Source?
NO <sub>x</sub>	0	217	50,000	No	No
SO <sub>x</sub>	0	0	140,000	No	No
PM <sub>10</sub>	0	6	140,000	No	No
CO	0	64	200,000	No	No
VOC	0	31	50,000	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.

#### 6. Baseline Emissions (BE):

BE = Pre-project Potential to Emit 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 Section 3.22

As shown above, the facility is not a Major Source for any criteria pollutant.

Therefore Baseline Emissions (BE) are equal to the Pre-Project Potential to Emit (PE1).

#### 7. Major Modification:

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."

As previously discussed, the facility is not a Major Source for any criteria pollutant; therefore, the project does not constitute a Major Modification.

**8. Federal Major Modification:**

As shown in the previous section, this project does not constitute a Major Modification. Therefore, in accordance with District Rule 2201, Section 3.17, this project does not constitute a Federal Major Modification and no further discussion is required.

**9. 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 B.

**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\*:

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

\*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 > 2.0 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 2-0 (lb/day)	BACT Threshold (lb/day)	SSPE2 (lb/yr)	BACT Triggered?
NO <sub>x</sub>	104.1	> 2.0	N/A	Yes
SO <sub>x</sub>	0.1	> 2.0	N/A	No
PM <sub>10</sub>	3.0	> 2.0	N/A	Yes
CO	30.8	> 2.0 and SSPE2 ≥ 200,000 lb/yr	64	No
VOC	14.8	> 2.0	N/A	Yes

Thus, BACT will be triggered for NO<sub>x</sub>, PM<sub>10</sub> and VOC emissions from the engine for this project.

**b. Relocation of emissions units – PE > 2.0 lb/day**

This engine is not being relocated from one stationary source to another as a result of this project. Therefore, BACT is not triggered for the relocation of emissions units with a PE > 2.0 lb/day.

**c. Modification of emissions units – Adjusted Increase in Permitted Emissions (AIPE) > 2.0 lb/day**

This engine is not being modified as a result of this project. Therefore, BACT is not triggered for the modification of emissions units with an AIPE > 2.0 lb/day.

**d. Major Modification**

As discussed previously, this project does not constitute a Major Modification. Therefore, BACT is not triggered for a Major Modification.

**2. BACT Guideline:**

BACT Guideline 3.1.3, which appears in Appendix C of this report, covers diesel-fired emergency IC engines of greater than or equal to 400 brake horsepower. When this emergency engine was installed in 2003 this would have been the applicable BACT guideline. Per District Policy FYI-98, this emergency engine was installed with BACT for the control of NO<sub>x</sub>, PM<sub>10</sub> and VOC emissions. Per this policy the BACT analysis will be limited to the types of controls to the specific equipment installed (see Appendix C BACT Analysis).

**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 C of this report, BACT is satisfied with:

NO<sub>x</sub>: Certified NO<sub>x</sub> emissions of 6.9 g/bhp-hr or less  
VOC: Positive crankcase ventilation (or 90% efficient control device)  
PM<sub>10</sub>: PM<sub>10</sub> emissions of 0.149 g/bhp-hr or less (since T-BACT is triggered)

Therefore, the following conditions will be listed on the ATC to ensure compliance:

- {edited 3485} Emissions from this IC engine shall not exceed any of the following limits: 3.79 g-NOx/bhp-hr, 1.12 g-CO/bhp-hr, or 0.54 g-VOC/bhp-hr. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115]
- {edited 3486} Emissions from this IC engine shall not exceed 0.11 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115]
- {1897} This engine shall be equipped with either a positive crankcase ventilation (PCV) system which recirculates crankcase emissions into the air intake system for combustion. [District Rule 2201]

**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 offset calculations are not required.

**C. Public Notification:**

**1. Applicability:**

Public noticing is required for:

- a. New Major Sources, which is a new facility that is also a Major Source,
- b. Major Modifications,
- c. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- d. Any project which results in the offset thresholds being surpassed, and/or
- e. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

**a. New Major Source**

A New Major Source is a new facility, which also becomes a major source. Since this new facility does not become a Major Source as a result of this project, public noticing is not required.

**b. Major Modification**

As demonstrated previously, this project does not constitute a Major Modification; therefore, public noticing for Major Modification purposes is not required.

**c. PE > 100 lb/day**

The Daily PE for this new emissions unit is compared to the daily PE Public Notice Thresholds in the following table:

PE > 100 lb/day Public Notice Thresholds			
Pollutant	Daily PE for unit 2-0 (lb/day)	Public Notice Threshold (lb/day)	Public Notice Triggered?
NO <sub>x</sub>	104.1	100	Yes
SO <sub>x</sub>	0.1	100	No
PM <sub>10</sub>	3.0	100	No
CO	30.8	100	No
VOC	14.8	100	No

As detailed in the preceding table, NO<sub>x</sub> emissions exceed the 100 lb/day threshold for this project. Therefore, public noticing is required for daily emissions greater than 100 lb/day for a new emissions unit.

**d. Offset Threshold**

The following table compares the SSPE1 with the SSPE2 to the offset thresholds to determine if any offset thresholds have been surpassed with this project.

Offset Threshold				
Pollutant	SSPE1 (lb/yr)	SSPE2 (lb/yr)	Offset Threshold (lb/yr)	Public Notice Required?
NO <sub>x</sub>	0	217	20,000	No
SO <sub>x</sub>	0	0	54,750	No
PM <sub>10</sub>	0	6	29,200	No
CO	0	64	200,000	No
VOC	0	31	20,000	No

As detailed in the preceding table, there are no offset thresholds that are surpassed with this project. Therefore, public noticing is not required for this project for surpassing the SSPE2 offset thresholds.

**e. SSIPE > 20,000 lb/year**

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e.  $SSIPE = SSPE2 - SSPE1$ . The values for SSPE2 and SSPE1 are calculated according to Rule 2201, Sections 4.9 and 4.10, respectively. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:

SSIPE Public Notice Threshold					
Pollutant	SSPE2 (lb/yr)	SSPE1 (lb/yr)	SSIPE (lb/yr)	SSIPE Threshold (lb/yr)	Public Notice Required?
NO <sub>x</sub>	217	0	217	20,000	No
SO <sub>x</sub>	0	0	0	20,000	No
PM <sub>10</sub>	6	0	6	20,000	No
CO	64	0	64	20,000	No
VOC	31	0	31	20,000	No

As detailed in the preceding table, there are no SSIPE thresholds surpassed with this project. Therefore, public noticing is not required for exceeding the SSIPE thresholds.

**2. Public Notice Action:**

As discussed above, public noticing is required for this project for surpassing the PE > 100 lb/day for a new emissions unit for NO<sub>x</sub> emissions. 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 3.15 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, 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. DELs are also required to enforce the applicability of BACT. For this emergency standby IC engine, the DELs are stated in the form of emission factors, the maximum engine horsepower rating, and the maximum operational time of 24 hours per day. Therefore, the following conditions (previously proposed in this engineering evaluation) will be listed on the ATC to ensure compliance:

- {edited 3485} Emissions from this IC engine shall not exceed any of the following limits: 3.79 g-NO<sub>x</sub>/bhp-hr, 1.12 g-CO/bhp-hr, or 0.54 g-VOC/bhp-hr. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115]
- {edited 3486} Emissions from this IC engine shall not exceed 0.11 g-PM<sub>10</sub>/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115]

In addition, the DEL for SO<sub>x</sub> is established by the sulfur content of the fuel being combusted in the engine. Therefore, the following condition will be listed on the ATC to ensure compliance:

- {3395} 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**

Additional monitoring is not 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, *Stationary Internal Combustion Engines - Phase 2*, 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 evaluation.

**4. Reporting**

Additional reporting is not required to ensure compliance with Rule 2201.

**F. Ambient Air Quality Analysis:**

Section 4.14.1 of this Rule requires that an ambient air quality analysis (AAQA) be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of a State or National ambient air quality standard. An AAQA is required to be performed for all New Source Review (NSR) public notice projects. As previously discussed, this project requires a public notice be performed before issuance of the ATC for this project. Therefore, the District is required to perform an AAQA for this project.

The Technical Services Division of the SJVAPCD conducted the required AAQA for this project. The results of the AAQA are presented in the following two tables. Refer to Appendix D of this document for the AAQA summary and the PM<sub>10</sub> 24 hour and annual emissions contribution levels for this project.

Criteria Pollutant Modeling Results \*  
Values are in  $\mu\text{g}/\text{m}^3$

AAQA Results Summary					
Pollutant	1 hr Average	3 hr Average	8 hr Average	24 hr Average	Annual Average
CO	Pass	X	Pass	X	N/A
NO <sub>x</sub>	Pass <sup>1</sup>	X	X	X	Pass
SO <sub>x</sub>	Pass	Pass	X	Pass	Pass
PM <sub>10</sub>	X	X	X	Pass <sup>2</sup>	Pass <sup>2</sup>

\* Results are based on criteria pollutant submitted for this application review.

1. The NO<sub>x</sub> 1-hour modeling results passed after using the Ozone Limiting Modeling (OLM).
2. The criteria pollutants are below EPA's level of significance as found in CFR 40 Part 51.165 (b) (2).

The criteria modeling runs for this project indicate that the emissions from the proposed diesel-fired emergency engine will not cause or significantly contribute to a violation of a State or National AAQS.

**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)**

**40 CFR 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

§60.4200 - Applicability

This subpart is applicable to owners and operators of stationary compression ignited internal combustion engines that commence construction after July 11, 2005, where the engines are:

- 1) Manufactured after April 1, 2006, if not a fire pump engine.
- 2) Manufactured as a National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

Based on information provided by the applicant this engine was installed in 2003 and this subpart does not apply.



**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.

Therefore pursuant to the policy, a risk management review has been performed for this project to analyze the impact of toxic emissions. For projects where the increase in cancer risk is greater than one per million, Toxic Best Available Control Technology (T-BACT) is required.

The HRA results for this project are shown below (see the HRA Summary in Appendix D):

RMR Summary			
Categories	Emergency Diesel ICE (Unit -2-0)	Project Totals	Facility Totals
Prioritization Score	N/A <sup>1</sup>	N/A <sup>1</sup>	
Acute Hazard Index	N/A <sup>2</sup>	N/A <sup>2</sup>	
Chronic Hazard Index	N/A <sup>2</sup>	N/A	
Maximum Individual Cancer Risk (10 <sup>-6</sup> )	1.81	1.81	1.81
T-BACT Required? (PM10)	Yes		
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 prioritization scores 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 it has been determined to be insignificant for these types of units.

As demonstrated previously, T-BACT is required for this project because the HRA indicates that the risk is above the District's thresholds for triggering T-BACT requirements.

For this project T-BACT is triggered for PM<sub>10</sub>. T-BACT is satisfied with BACT for PM<sub>10</sub>, which is PM<sub>10</sub> emissions from this engine of 0.1 g/bhp-hr or less, per BACT Guideline 3.1.3 in Appendix C. The engine involved with this project has a PM<sub>10</sub> emissions factor of 0.11 g/bhp-hr, as previously presented. Therefore, compliance with the District's Risk Management Policy is expected.<sup>2</sup>

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 10 in a million). As outlined by the HRA Summary in Appendix D of this report, the emissions increases for this project was determined to be less than significant.

Therefore, the following conditions will be listed on the ATC to ensure compliance:

- {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction.  
[District Rule 4102]

<sup>2</sup> Any engine model included in CARB or USEPA diesel engine certification lists identified as having an emission rate of 0.149 g/bhp-Hr or less based on the ISO 8178 test procedure shall be deemed to meet the 0.1g/BHP-Hr requirement (Source-specific PM testing is not required to demonstrate compliance with this limit).

- {edited 3486} Emissions from this IC engine shall not exceed 0.11 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115]
- {3810} 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**

Particulate matter emissions from the engine will be less than or equal to the rule limit of 0.1 grain per cubic foot of gas at dry standard conditions as shown by the following:

$$0.11 \frac{g - PM_{10}}{bhp - hr} \times \frac{1g - PM}{0.96g - PM_{10}} \times \frac{1bhp - hr}{2,542.5 Btu} \times \frac{10^6 Btu}{9,051 dscf} \times \frac{0.35 Btu_{out}}{1 Btu_{in}} \times \frac{15.43 grain}{g} = 0.027 \frac{grain - PM}{dscf}$$

Since 0.027 grain-PM/dscf is ≤ to 0.1 grain per dscf, compliance with Rule 4201 is expected.

Therefore, the following condition will be listed on the ATC to ensure compliance:

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

**Rule 4701 Internal Combustion Engines – Phase 1**

Pursuant to Section 7.5.2.3 of District Rule 4702, as of June 1, 2006 District Rule 4701 is no longer applicable to diesel-fired emergency standby or emergency IC engines. Therefore, this diesel-fired emergency IC engine will comply with the requirements of District Rule 4702 and no further discussion is required.

**Rule 4702 Internal Combustion Engines – Phase 2**

The purpose of this rule is to limit the emissions of nitrogen oxides (NO<sub>x</sub>), 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.

Pursuant to Section 4.2, except for the requirements of Sections 5.7 and 6.2.3, the requirements of this rule shall not apply to an internal combustion engine that meets the following condition:

- 1) An emergency standby engine as defined in Section 3.0 of this rule, and provided that it is operated with a nonresettable elapsed operating time meter. In lieu of a nonresettable time meter, the owner of an emergency engine may use an alternative device, method, or technique, in determining operating time provided

that the alternative is approved by the APCO. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.

Section 3.15 defines an "Emergency Standby Engine" as an internal combustion engine which operates as a temporary replacement for primary mechanical or electrical power during an unscheduled outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the operator. An engine shall be considered to be an emergency standby engine if it is used only for the following purposes: (1) periodic maintenance, periodic readiness testing, or readiness testing during and after repair work; (2) unscheduled outages, or to supply power while maintenance is performed or repairs are made to the primary power supply; and (3) if it is limited to operate 100 hours or less per calendar year for non-emergency purposes. An engine shall not be considered to be an emergency standby engine if it is used: (1) to reduce the demand for electrical power when normal electrical power line service has not failed, or (2) to produce power for the utility electrical distribution system, or (3) in conjunction with a voluntary utility demand reduction program or interruptible power contract.

Therefore, the emergency standby IC engine involved with this project will only have to meet the requirements of Sections 5.7 and 6.2.3 of this Rule. Section 5.7 of this Rule requires that the owner of an emergency standby engine shall comply with the requirements specified in Section 5.7.2 through Section 5.7.5 below:

- 1) Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.
- 2) Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.
- 3) Install and operate a nonresettable elapsed operating time meter. In lieu of installing a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and is allowed by Permit-to-Operate or Stationary Equipment Registration condition. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.

Therefore, the following conditions will be listed on the ATC to ensure compliance:

- {3405} 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]
- {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]

- {3403} This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 17 CCR 93115]
- {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]
- {3810} 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]

Section 6.2.3 requires that an owner claiming an exemption under Section 4.2 or Section 4.3 shall maintain annual operating records. This information shall be retained for at least five years, shall be readily available, and submitted to the APCO upon request and at the end of each calendar year in a manner and form approved by the APCO. Therefore, the following conditions will be listed on the ATC to ensure compliance:

- {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]
- {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 SO<sub>2</sub>) 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 SO<sub>2</sub>

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

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

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

Since 1.0 ppmv is  $\leq$  2,000 ppmv, this engine is expected to comply with Rule 4801. Therefore, the following condition (previously proposed in this engineering evaluation) will be listed on the ATC to ensure compliance:

- {3395} 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]

### **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 13 California Code of Regulations (CCR), Section 2423 – Exhaust Emission Standards and Test Procedures, Off-Road Compression-Ignition Engines and Equipment (Required by Title 17 CCR, Section 93115 for New Emergency Standby Diesel IC Engines)**

#### **Particulate Matter and VOC + NO<sub>x</sub>, and CO Exhaust Emissions Standards:**

This regulation stipulates that off-road compression-ignition engines shall not exceed the following applicable emissions standards.

Title 13 CCR, Section 2423 lists a diesel particulate emission standard of 0.15 g/bhp-hr (with 1.341 bhp/kW, equivalent to 0.20 g/kW-hr) for 2001 through 2005 model year engines with maximum power ratings of  $\geq$  300 and  $<$  600 bhp (equivalent to  $\geq$  225 and  $<$  450 kW). Therefore, the PM standards given in Title 13 CCR, Section 2423 are less stringent than ATCM, and thus the ATCM standards are the required standards and will be discussed in the following section.

Title 17 CCR, Section 93115, (e)(2)(A)(3)(b) stipulates that new stationary emergency standby diesel-fueled CI engines ( $>$  50 bhp) must meet the VOC + NO<sub>x</sub>, and CO 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) or the Tier 1 standards for an off-road engine if no standards have been established for an off-road engine of the same model year and maximum rated power.

The engine involved with this project is a certified 2003 model engine. The following table compares the requirements of Title 13 CCR, Section 2423 to the emissions factors for the 519 bhp Caterpillar Model 3406C diesel-fired emergency standby IC engine as

given by the manufacturer (for NO<sub>x</sub> + VOC and PM emissions) and CARB/EPA certification (Engine Family 3CPXL14.6ESX).

Requirements of Title 13 CCR, Section 2423							
Source	Maximum Rated Power	Model Year	NO <sub>x</sub>	VOC	NO <sub>x</sub> + VOC	CO	PM
Title 13 CCR, §2423	≥ 300 < 600 bhp (≥ 224 - 448 kW)	2002 - 2005 (Tier 2)	--	--	4.8 g/bhp-hr (6.4 g/kW-hr)	2.6 g/bhp-hr (3.5 g/kW-hr)	0.15 g/bhp-hr (0.20 g/kW-hr)
Caterpillar Model 3406C	519 bhp	2003	--	--	4.3 g/bhp-hr (5.8 g/kW-hr)	1.1 g/bhp-hr (1.5 g/kW-hr)	0.11 g/bhp-hr (0.15 g/kW-hr)
Meets Standard?			N/A	N/A	Yes	Yes	Yes

As presented in the table above, the proposed engine will satisfy the requirements of this section and compliance is expected.

The CARB/EPA engine certification for this engine lists a NO<sub>x</sub> + VOC emission factor of 4.3 g/bhp-hr, a CO emission factor of 1.1 g/bhp-hr, and a PM<sub>10</sub> emissions factor of 0.11 g/bhp-hr, all of which satisfy the requirements of 13 CCR, Section 2423. Therefore, the following conditions (previously proposed in this engineering evaluation) will be listed on the ATC to ensure compliance:

- {edited 3485} Emissions from this IC engine shall not exceed any of the following limits: 3.79 g-NO<sub>x</sub>/bhp-hr, 1.12 g-CO/bhp-hr, or 0.54 g-VOC/bhp-hr. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115]
- {edited 3486} Emissions from this IC engine shall not exceed 0.11 g-PM<sub>10</sub>/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115]

Right of the District to Establish More Stringent Standards:

This regulation also stipulates that the District:

1. May establish more stringent diesel PM, NO<sub>x</sub> + VOC, VOC, NO<sub>x</sub>, and CO emission rate standards; and
2. May establish more stringent limits on hours of maintenance and testing on a site-specific basis; and
3. Shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with other District rules and initial start-up testing

The District has not established more stringent standards at this time. Therefore, the standards previously established in this Section will be utilized.

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

Emergency Operating Requirements:

This regulation stipulates that no owner or operator shall operate any new or in-use stationary diesel-fueled compression ignition (CI) emergency standby engine, in response to the notification of an impending rotating outage, unless specific criteria are met.

This section applies to emergency standby IC engines that are permitted to operate during non-emergency conditions for the purpose of providing electrical power. However, District Rule 4702 states that emergency standby IC engines may only be operated during non-emergency conditions for the purposes of maintenance and testing. Therefore, this section does not apply and no further discussion is required.

Fuel and Fuel Additive Requirements:

This regulation also stipulates that as of January 1, 2006 an owner or operator of a new or in-use stationary diesel-fueled CI emergency standby engine shall fuel the engine with CARB Diesel Fuel.

Since the engine involved with this project is an in-use stationary diesel-fueled CI emergency standby engine, these fuel requirements are applicable. Therefore, the following condition (previously proposed in this engineering evaluation) will be listed on the ATC to ensure compliance:

- {3395} 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]

At-School and Near-School Provisions:

This regulation stipulates that no owner or operator shall operate a new stationary emergency standby diesel-fueled CI engine, with a PM<sub>10</sub> emissions factor > than 0.01 g/bhp-hr, for non-emergency use, including maintenance and testing, during the following periods:

1. Whenever there is a school sponsored activity, if the engine is located on school grounds, and
2. Between 7:30 a.m. and 3:30 p.m. on days when school is in session, if the engine is located within 500 feet of school grounds.

The District has verified that the engine is not located within 500 feet of a K-12 school. Therefore, conditions prohibiting non-emergency usage of the engine during school hours will not be placed on the permit.



Recordkeeping Requirements:

This regulation stipulates that as of January 1, 2005, each owner or operator of an emergency standby diesel-fueled CI engine shall keep a monthly log of usage that shall list and document the nature of use for each of the following:

- a. Emergency use hours of operation;
- b. Maintenance and testing hours of operation;
- c. Hours of operation for emission testing;
- d. Initial start-up hours; and
- e. If applicable, hours of operation to comply with the testing requirements of National Fire Protection Association (NFPA) 25 — "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems," 1998 edition;
- f. Hours of operation for all uses other than those specified in sections 'a' through 'd' above; and
- g. For in-use emergency standby diesel-fueled engines, the fuel used. The owner or operator shall document fuel use through the retention of fuel purchase records that account for all fuel used in the engine and all fuel purchased for use in the engine, and, at a minimum, contain the following information for each individual fuel purchase transaction:
  - I. Identification of the fuel purchased as either CARB Diesel, or an alternative diesel fuel that meets the requirements of the Verification Procedure, or an alternative fuel, or CARB Diesel fuel used with additives that meet the requirements of the Verification Procedure, or any combination of the above;
  - II. Amount of fuel purchased;
  - III. Date when the fuel was purchased;
  - IV. Signature of owner or operator or representative of owner or operator who received the fuel; and
  - V. Signature of fuel provider indicating fuel was delivered.

The engine associated with this project is a new emergency standby engine powering an electrical generator. Therefore, the following conditions (previously proposed in this engineering evaluation) will be listed on the ATC to ensure compliance:

- {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]
- {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]

### PM Emissions and Hours of Operation Requirements for New Diesel Engines:

This regulation stipulates that as of January 1, 2005, no person shall operate any new stationary emergency standby diesel-fueled CI engine that has a rated brake horsepower greater than 50, unless it meets all of the following applicable emission standards and operating requirements.

1. Emits diesel PM at a rate greater than 0.01 g/bhp-hr or less than or equal to 0.15 g/bhp-hr; or
2. Meets the current model year diesel PM standard specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (Title 13 CCR, Section 2423), whichever is more stringent; and
3. Does not operate more than 50 hours per year for maintenance and testing purposes. Engine operation is not limited during emergency use and during emissions source testing to show compliance with the ATCM.

Therefore, the following conditions (previously proposed in this engineering evaluation) will be listed on the ATC to ensure compliance:

- {edited 3486} Emissions from this IC engine shall not exceed 0.11 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115]
- {3810} 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]

### 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.

Consistent with California Environmental Quality Act (CEQA) and CEQA Guidelines requirements, the San Joaquin Valley Air Pollution Control District (District) has adopted procedures and guidelines for implementing CEQA. The District's Environmental Review Guidelines (ERG) establishes procedures for avoiding unnecessary delay during the District's permitting process while ensuring that significant environmental impacts are thoroughly and consistently addressed. The ERG includes policies and procedures to be followed when processing permits for projects that are exempt under CEQA.

The State Legislature granted a number of exemptions from CEQA, including projects that require only ministerial approval. Based upon analysis of its own laws and consideration of CEQA provisions, the District has identified a limited number of District permitting activities considered to be ministerial approvals. As set forth in §4.2.1 of the ERG, projects permitted consistent with the District's *Guidelines for Expedited Application Review* (GEAR) are standard application reviews in which little or no discretion is used in issuing Authority to Construct (ATC) documents.

For the proposed project, the District performed an Engineering Evaluation (this document) and determined that the project qualifies for processing under the procedures set forth in the District's Permit Services Procedures Manual in the Guidelines for Expedited Application Review (GEAR). Thus, as discussed above, this issuance of such ATC(s) is a ministerial approval for the District and is not subject to CEQA provisions.

On December 17, 2009, the District's Governing Board adopted the first comprehensive regional policy and guidance on addressing and mitigating GHG emission impacts caused by industrial, commercial, and residential development in the San Joaquin Valley. The adopted District policy – *Addressing GHG Emission Impacts for Stationary Source Projects under CEQA When Serving as the Lead Agency* applies to projects for which the District has discretionary approval authority over the project and serves as the lead agency for CEQA purposes. The policy relies on the use of performance based standards, otherwise known as Best Performance Standards (BPS) to assess significance of project specific greenhouse gas emissions on global climate change during the environmental review process, as required by CEQA.

Use of BPS is a method of streamlining the CEQA process of determining significance and is not a required emission reduction measure. However, consistent with the District's objective to achieve the GHG emission reduction targets established pursuant to AB 32, BPS will be incorporated into the District's GEAR application review process. In the interim, projects meeting the existing GEAR requirements will continue to be processed as ministerial approvals.

**IX. RECOMMENDATION:**

Pending a successful NSR Public Noticing period, the air district will issue Authority to Construct N-7343-2-0 permit subject to the permit conditions on the attached Authority to Construct in Appendix A.

**X. BILLING INFORMATION:**

<b>Billing Schedule</b>			
<b>Permit Number</b>	<b>Fee Schedule</b>	<b>Fee Description</b>	<b>Fee Amount</b>
N-7343-2-0	3020-10-D	519 bhp IC engine	\$479.00

**Appendices**

- A. Authority to Construct permit
- B. QNEC Calculations
- C. BACT Guideline and Top-down analysis
- D. HRA Summary and AAQA

# **APPENDIX A**

Draft Authority to Construct Permit  
N-7343-2-0

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT

PERMIT NO: N-7343-2-0

LEGAL OWNER OR OPERATOR: CITY OF PATTERSON  
MAILING ADDRESS: PO BOX 667  
PATTERSON, CA 95363-0667

LOCATION: ORANGE AVE & LOCUST AVE  
PATTERSON, CA

EQUIPMENT DESCRIPTION:  
519 BHP CATERPILLAR MODEL 3406C DIESEL-FIRED EMERGENCY IC ENGINE (TIER 2 CERTIFIED) POWERING AN ELECTRIC GENERATOR

**CONDITIONS**

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. {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]
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. {3403} This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 17 CCR 93115]
6. {3395} 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: 3.79 g-NOx/bhp-hr, 1.12 g-CO/bhp-hr, or 0.54 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
8. Emissions from this IC engine shall not exceed 0.11 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 410 and 17 CCR 93115]
9. {3405} 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]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 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

N-7343-2-0 : Jul 19 2010 11:50AM -- CRUZP : Joint Inspection NOT Required

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. {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]
14. {3810} 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. {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

# Appendix B

## 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 - BE, where:

- QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
- PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.
- BE = Baseline Emissions (per Rule 2201) for each emissions unit, lb/qtr.

Using the emission calculations in this evaluation, PE2<sub>quarterly</sub> and BE<sub>quarterly</sub> can be calculated as follows:

This calculation is required for application emission profile purposes. It is assumed that each unit's annual emissions are evenly distributed throughout the year as follows:  $\Delta PE \text{ (lb/qtr)} = PE \text{ (lb/yr)} \div 4 \text{ qtr/yr}$

N-7343-2-0:

$\Delta PE_{NOx}$	= 217 lb-NOx/year – 0 lb-NOx/year	= 217 lb/year
$\Delta PE_{CO}$	= 64 lb-CO/year – 0 lb-CO/year	= 64 lb/year
$\Delta PE_{VOC}$	= 31 lb-VOC/year – 0 lb-VOC/year	= 31 lb/year
$\Delta PE_{PM10}$	= 6 lb-PM10/year – 0 lb-PM10/year	= 6 lb/year
$\Delta PE_{SOx}$	= 0 lb-SOx/year – 0 lb-SOx/year	= 0 lb/year

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
<b>NOx</b>	54	54	54	55
<b>CO</b>	16	16	16	16
<b>VOC</b>	7	8	8	8
<b>PM<sub>10</sub></b>	1	1	2	2
<b>SOx</b>	0	0	0	0



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 contained in the SIP	Technologically Feasible	Alternate Basic Equipment
CO	Latest EPA Tier Certification level for applicable horsepower range		
NOX	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		

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.

**\*This is a Summary Page for this Class of Source - Permit Specific BACT Determinations on Next Page(s)**

## Appendix C

### BACT Guideline and BACT Analysis

## Top Down BACT Analysis for the Emergency IC Engine(s)

Oxides of nitrogen (NO<sub>x</sub>) are generated from the high temperature combustion of the diesel fuel. A majority of the NO<sub>x</sub> emissions are formed from the high temperature reaction of nitrogen and oxygen in the inlet air. The rest of the NO<sub>x</sub> emissions are formed from the reaction of fuel-bound nitrogen with oxygen in the inlet air.

Per District Policy FYI-98, this emergency engine was installed with BACT for the control of NO<sub>x</sub>, PM<sub>10</sub> and VOC emissions. As specified in this policy the BACT analysis will be limited to the types of controls to the specific equipment installed, i. e. diesel-fired emergency engines rated at  $\geq 400$  bhp. Therefore, the BACT analysis will evaluate the achieved-in-practice control technologies for the control of the above stated pollutants. As noted in this analysis, there are no listed technologically feasible control technologies for the control of these pollutants.

### 1. BACT Analysis for NO<sub>x</sub> Emissions:

#### a. Step 1 - Identify all control technologies

The SJVAPCD BACT Clearinghouse guideline 3.1.3, 4<sup>th</sup> quarter 2003, identifies achieved in practice BACT for NO<sub>x</sub> emissions from emergency diesel IC engines ( $\geq 400$  bhp) as follows:

- 1) Certified emissions of 6.9 g-NO<sub>x</sub>/bhp-hr or less

There are no technologically feasible alternatives or control alternatives identified as alternate basic equipment listed for this class and category of source.

#### b. Step 2 - Eliminate technologically infeasible options

There are no technologically infeasible options to eliminate from step 1.

#### c. Step 3 - Rank remaining options by control effectiveness

Ranking is not necessary since the applicant has proposed the achieved in practice control technology.

#### d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the only control achieved in practice in the ranking list from Step 3. Therefore, per SJVAPCD BACT policy, the cost effectiveness analysis is not required.

#### e. Step 5 - Select BACT

BACT for NO<sub>x</sub> emissions from this emergency standby diesel IC engine ( $\geq 400$  bhp) is the use of an engine with certified emissions of 6.9 g-NO<sub>x</sub>/bhp-hr or less. The applicant

has proposed to install a 519 bhp emergency standby diesel IC engine with certified emissions of 6.9 g-NO<sub>x</sub>/bhp-hr, or less. Therefore, BACT for NO<sub>x</sub> emissions is satisfied.

## **2. BACT Analysis for PM<sub>10</sub> Emissions:**

Particulate matter (PM<sub>10</sub>) emissions occur from the reaction of various elements in the diesel fuel including fuel sulfur.

### **a. Step 1 - Identify all control technologies**

The SJVAPCD BACT Clearinghouse guideline 3.1.3, 4th quarter 2003 identifies achieved in practice BACT for PM<sub>10</sub> emissions from emergency diesel IC engines (≥ 400 bhp) as follows:

- 1) Certified emissions of 0.1 g-PM<sub>10</sub>/bhp-hr, or less (since T-BACT is triggered)

There are no technologically feasible alternatives or control alternatives identified as alternate basic equipment listed for this class and category of source.

### **b. Step 2 - Eliminate technologically infeasible options**

There are no technologically infeasible options to eliminate from step 1.

### **c. Step 3 - Rank remaining options by control effectiveness**

Ranking is not necessary since the applicant has proposed the achieved in practice option.

### **d. Step 4 - Cost Effectiveness Analysis**

The applicant has proposed the only control achieved in practice in the ranking list from Step 3. Therefore, per SJVAPCD BACT policy, the cost effectiveness analysis is not required.

### **e. Step 5 - Select BACT**

BACT for PM<sub>10</sub> emissions from this emergency standby diesel IC engine ≥ 400 bhp is the use of a diesel-fired emergency engine with certified emissions of 0.4 g-PM<sub>10</sub>/bhp-hr, or less. The applicant has proposed to install a 519 bhp emergency standby diesel IC engine with certified emissions of 0.11 g-PM<sub>10</sub>/bhp-hr, or less.

Any engine model included in CARB or USEPA diesel engine certification lists identified as having an emission rate of 0.149 g/bhp-Hr or less based on the ISO 8178 test procedure shall be deemed to meet the 0.1g/BHP-Hr requirement (source-specific PM testing is not required to demonstrate compliance with this limit). Therefore, BACT for PM<sub>10</sub> emissions is satisfied.

### **3. BACT Analysis for VOC Emissions:**

Volatile organic compounds (VOC) are emitted from the crankcase of the engine as a result of piston ring blow-by.

#### **a. Step 1 - Identify all control technologies**

The SJVUAPCD BACT Clearinghouse guideline 3.1.3, 4th quarter 2003, identifies 0 achieved in practice BACT for VOC emissions from emergency diesel IC engines ( $\geq$  400 bhp) as follows:

- 1) Positive crankcase ventilation (or 90% efficient control device)

There are no technologically feasible alternatives or control alternatives identified as alternate basic equipment listed for this class and category of source.

#### **b. Step 2 - Eliminate technologically infeasible options**

There are no technologically infeasible options to eliminate from step 1.

#### **c. Step 3 - Rank remaining options by control effectiveness**

Ranking is not necessary since the applicant has proposed the achieved in practice option.

#### **d. Step 4 - Cost effectiveness analysis**

The applicant has proposed the only control achieved in practice in the ranking list from Step 3. Therefore, per SJVUAPCD BACT policy, the cost effectiveness analysis is not required.

#### **e. Step 5 - Select BACT**

BACT for VOC emissions from this emergency standby diesel IC engine  $\geq$  400 bhp is the use of an engine with a positive crankcase ventilation or 90% efficient control device. The applicant has proposed to install a 519 bhp emergency standby diesel IC engine with a positive crankcase ventilation system. Therefore BACT for VOC emissions is satisfied.

## **Appendix D**

HRA Summary and AAQA

## San Joaquin Valley Air Pollution Control District Risk Management Review

To: Fred Cruz, AQE – Permit Services  
 From: Jaime Horio, AQS – Technical Services  
 Date: June 10, 2010  
 Facility Name: City of Patterson  
 Location: 300 ft W. of Orange & Locust Ave  
 Patterson, CA  
 Application #(s): N-7343-2-0  
 Project #: N-1084483

### A. RMR SUMMARY

RMR Summary			
Categories	Diesel IC Engine (Unit 2-0)	Project Totals	Facility Totals
<b>Prioritization Score</b>	NA <sup>1</sup>	NA <sup>1</sup>	
<b>Acute Hazard Index</b>	N/A <sup>2</sup>	N/A <sup>2</sup>	
<b>Chronic Hazard Index</b>	N/A <sup>2</sup>	N/A <sup>2</sup>	
<b>Maximum Individual Cancer Risk (10<sup>-6</sup>)</b>	1.81	1.81	1.81
<b>T-BACT Required?</b>	<b>Yes</b>		
<b>Special Permit Conditions?</b>	<b>Yes</b>		

- 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 not risk factor or the risk factor is so low that it 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 # 2-0

1. The PM10 emissions rate shall not exceed 0.11 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201]
2. 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]
3. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
4. 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]
5. Operation of this engine for all purposes combined shall not exceed 19.6 hours per 24-hr rolling period. [District Rule 2201 and 4102]

**T-BACT is required for this unit because of emissions of diesel exhaust which is a PM-10. In accordance with District policy, BACT for this unit will be considered to be T-BACT.**

## **B. RMR REPORT**

### **I. Project Description**

Technical Services received a request on May 26, 2010, to perform an Ambient Air Quality Analysis and a Risk Management Review for a 519 bhp diesel-fired IC engine powering an electrical generator.

### **II. Analysis**

Technical Services performed a screening level health risk assessment using the District developed DICE database.

The following parameters were used for the review:

<b>Analysis Parameters Unit 2-0</b>			
<b>Source Type</b>	Point	<b>Location Type</b>	Rural
<b>BHP</b>	519	<b>PM<sub>10</sub> g/hp-hr</b>	0.11
<b>Closest Receptor (m)</b>	66	<b>Quad</b>	2
<b>Max Hours per Year</b>	50	<b>Type of Receptor</b>	Residential

Technical Services performed modeling for criteria pollutants CO, NO<sub>x</sub>, SO<sub>x</sub> and PM<sub>10</sub>; as well as a RMR. The emission rates used for criteria pollutant modeling were 1.28 lb/hr CO, 4.34 lb/hr NO<sub>x</sub>, 0.006 lb/hr SO<sub>x</sub>, and 0.13 lb/hr PM<sub>10</sub>. The engineer supplied the maximum fuel rate for the IC engine used during the analysis.

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	Pass	X	Pass	X	X
NO <sub>x</sub>	Pass**	X	X	X	Pass
SO <sub>x</sub>	Pass	Pass	X	Pass	Pass
PM <sub>10</sub>	X	X	X	Pass <sup>1,2</sup>	Pass <sup>2</sup>

\*Results were taken from the attached PSD spreadsheet.

\*\*The NO<sub>x</sub> 1-hour modeling was conducted using the District-developed Tier 3 modeling procedure, and the Ozone Limiting Method.

<sup>1</sup>In order to stay below the EPA's Significance Level, this unit must be limited to 19.6 hours/day. A condition will be placed on the ATC/PTO to enforce this.

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

### III. Conclusion

The acute and chronic indices are below 1.0 and the cancer risk associated with the IC engine is greater than 1.0 in a million, but less than 10 in a million. **In accordance with the District's Risk Management Policy, the project is approved with 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 this 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.

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

#### Attachments:

- A. RMR request from the project engineer
- B. Risk Score
- C. AAQA Summary
- D. NO<sub>2</sub> NAAQS Summary
- E. Facility Summary

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