

February 3, 2021

Ned Gibson
Saint Agnes Medical Center
1303 E Herndon Ave
Fresno, CA 93720

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: C-1059
Project Number: C-1202277

Dear Mr. Gibson:

Enclosed for your review and comment is the District's analysis of Saint Agnes Medical Center's application for an Authority to Construct for the installation of a 2,937 horsepower Tier 2 certified diesel engine to provide emergency power in the event of an electrical outage, and the modification to six existing emergency standby engines to modify their Specific Limiting Condition (SLC), at 1303 E Herndon Ave, Fresno, CA.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). 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 Ms. Andrea Ogden of Permit Services at (559) 230-5886.

Sincerely,



Brian Clements
Director of Permit Services

BC:ao

Enclosures

cc: Courtney Graham, CARB (w/ enclosure) via email

Samir Sheikh
Executive Director/Air Pollution Control Officer

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

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San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Diesel-Fired Emergency Standby IC Engine

Facility Name: Saint Agnes Medical Center Date: November 25, 2020
Mailing Address: 1303 E Herndon Ave Engineer: Andrea Ogden
 Fresno, CA 93720 Lead Engineer: Derek Fukuda
Contact Person: Ned Gibson
 Telephone: (559) 450-3186
 Cell Phone: (559) 301-1763
 E-Mail: Ned.Gibson@samc.com
Application #(s): C-1059-3-3, -4-3, -21-3, -22-3, -23-3, -25-1, and -27-0
 Project #: C-1202277
Deemed Complete: July 1, 2020

I. Proposal

Saint Agnes Medical Center has requested an Authority to Construct (ATC) permit for the installation of one (1) new emergency standby IC engine (ATC C-1059-27) to replace an existing emergency standby engine (Permit C-1059-5), and the modification of six (6) emergency standby IC engines (Permits C-1059-3, -4, -21, -22, -23, and -25) to modify the Specific Limiting Conditions (SLC) at 1303 E Herndon Ave, Fresno.

Since the facility has stated that the new engine will replace an existing engine (unit -5), the following condition will be included on ATC C-1059-27-0 to ensure the existing engine, C-1059-5, is removed from service and the requirements of Replacement Emissions Unit per District Rule 2201 are satisfied:

- {4830} Within 90 days after startup of the equipment authorized by this Authority to Construct, Permit to Operate C-1029-5 shall be surrendered to the District and the associated equipment shall be removed or rendered inoperable. [District Rule 2201]

The proposed modification to the existing annual NO_x emissions SLC covering the emergency IC engines at the facility is the removal of the specific permit unit numbers from the SLC condition and the addition of language stating the SLC includes all emergency standby IC engines (existing and future) at the facility. This is not a NSR modification per District Policy APR 1420. The modification of the SLC condition does not result in a change in emission factors, hours of operation, or emissions, therefore these units are not addressed in the Rule 2201 Compliance section.

The following condition will be included on C-1059-3-3, -4-3, -21-3, -22-3, -25-1, and -27-0:

- Combined annual NOx emissions from all permitted emergency backup engines powering electrical generators at this facility shall not exceed 7,232 lb-NOx/year. [District Rule 2201]

The draft ATCs are included in [Appendix A](#) and the current permits are included in [Appendix B](#).

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (8/15/19)
Rule 2410 Prevention of Significant Deterioration (6/16/11)
Rule 2520 Federally Mandated Operating Permits (8/15/19)
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
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 facility is located at 1303 E Herndon Ave in Fresno, CA. 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 engines power electrical generators. Other than emergency standby operation, the engines may be operated for maintenance and testing purposes.

V. Equipment Listing

New Permit Unit:

Equipment Description:

C-1059-27-0: 2937 BHP (INTERMITTENT) CATERPILLAR MODEL 3516 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

Modified Permit Units:

Pre-Project Equipment Description:

- C-1059-3-2:** 749 BHP CATERPILLAR 3412 (S/N 81Z10682) DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (ENGINE #4)
- C-1059-4-2:** 749 BHP CATERPILLAR 3412 S/N 81210671 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (ENGINE #5)
- C-1059-21-2:** 2,847 BHP CATERPILLAR MODEL 3516B DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR
- C-1059-22-2:** 972 BHP CATERPILLAR MODEL 3412 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR
- C-1059-23-2:** 972 BHP CATERPILLAR MODEL 3412 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR
- C-1059-25-0:** 1,502 BHP (INTERMITTENT) CATERPILLAR MODEL C32 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

Proposed Modification:

The proposed modification is to the remove the specific permit numbers from the Specific Limiting Condition of the annual NOx emissions limit and replace the specific permit numbers with general wording including all emergency standby IC engines (existing and future) at the facility.

- C-1059-3-3:** MODIFICATION OF 749 BHP CATERPILLAR 3412 (S/N 81Z10682) DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (ENGINE #4): MODIFICATION TO ANNUAL NOX EMISSIONS SLC TO INCLUDE ALL EMERGENCY ENGINES AT THE FACILITY
- C-1059-4-3:** MODIFICATION OF 749 BHP CATERPILLAR 3412 S/N 81210671 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (ENGINE #5): MODIFICATION TO ANNUAL NOX EMISSIONS SLC TO INCLUDE ALL EMERGENCY ENGINES AT THE FACILITY
- C-1059-21-3:** MODIFICATION OF 2,847 BHP CATERPILLAR MODEL 3516B DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL

GENERATOR: MODIFICATION TO ANNUAL NOX EMISSIONS SLC TO INCLUDE ALL EMERGENCY ENGINES AT THE FACILITY

C-1059-22-3: MODIFICATION OF 972 BHP CATERPILLAR MODEL 3412 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR: MODIFICATION TO ANNUAL NOX EMISSIONS SLC TO INCLUDE ALL EMERGENCY ENGINES AT THE FACILITY

C-1059-23-3: MODIFICATION OF 972 BHP CATERPILLAR MODEL 3412 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR: MODIFICATION TO ANNUAL NOX EMISSIONS SLC TO INCLUDE ALL EMERGENCY ENGINES AT THE FACILITY

C-1059-25-1: MODIFICATION OF 1,502 BHP (INTERMITTENT) CATERPILLAR MODEL C32 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR: MODIFICATION TO ANNUAL NOX EMISSIONS SLC TO INCLUDE ALL EMERGENCY ENGINES AT THE FACILITY

Post-Project Equipment Description:

C-1059-3-3: 749 BHP CATERPILLAR 3412 (S/N 81Z10682) DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (ENGINE #4)

C-1059-4-3: 749 BHP CATERPILLAR 3412 S/N 81210671 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (ENGINE #5)

C-1059-21-3: 2,847 BHP CATERPILLAR MODEL 3516B DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

C-1059-22-3: 972 BHP CATERPILLAR MODEL 3412 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

C-1059-23-3: 972 BHP CATERPILLAR MODEL 3412 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

C-1059-25-1: 1,502 BHP (INTERMITTENT) CATERPILLAR MODEL C32 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

C-1059-27-0: 2937 BHP (INTERMITTENT) CATERPILLAR MODEL 3516 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

VI. Emission Control Technology Evaluation

Existing ICEs (units -3, -4, and -5):

The emission control devices/technologies and their effect on diesel engine emissions are detailed below¹.

The turbocharger reduces the NO_x emission rate from the engine by approximately 10% by increasing the efficiency and promoting more complete burning of the fuel.

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.

Existing ICE (units -21, -22, and -23)

The emission control devices/technologies and their effect on diesel engine emissions are detailed below.

The turbocharger reduces the NO_x 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_x. NO_x emissions are reduced by approximately 15% with this control technology.

The PCV system reduces crankcase VOC and PM₁₀ 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_x emissions by over 99% from standard diesel fuel.

Existing ICE (unit -25):

The applicant has installed a Tier 2 certified diesel-fired IC engine that is fired on very low-sulfur diesel fuel.

The engine meets the latest Tier Certification requirements; therefore, the engine meets the latest ARB/EPA emissions standards for diesel particulate matter, hydrocarbons, nitrogen oxides, and carbon monoxide.

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.

¹ From "Non-catalytic NO_x Control of Stationary Diesel Engines", by Don Koeberlein, CARB.

New ICE (unit -27-0):

The applicant has proposed to install a Tier 2 certified diesel-fired IC engine that is fired on very low-sulfur diesel fuel.

The proposed engine meets the latest Tier Certification requirements for emergency standby engines; therefore, the engine meets the latest 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 and/or the ARB/EPA executive order](#)).

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

VII. General Calculations

A. Assumptions

Emergency operating schedule:	24 hours/day
Non-emergency operating schedule:	40 hours/year (units 3, 4, and 5 per current permit limits)
Non-emergency operating schedule:	50 hours/year (all other units)
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%
PM ₁₀ fraction of diesel exhaust:	0.96 (CARB, 1988)
Conversion factor:	1.34 bhp/kw

To streamline emission calculations, PM_{2.5} emissions are assumed to be equal to PM₁₀ emissions. Only if needed to determine if a project is a Federal major modification for PM_{2.5} will specific PM_{2.5} emission calculations be performed.

B. Emission Factors

Diesel-fired IC Engine Emission Factors (C-1059-3-2 and -4-2)			
Pollutant	lb/hr	g/hp-hr	Source
NO _x	0.013		Existing Permit
*SO _x		0.0051	Mass Balance Equation Below
PM ₁₀	0.0009		Existing Permit
CO	0.0033		Existing Permit
VOC	0.003		Existing Permit

Diesel-fired IC Engine Emission Factors (C-1059-5-2)			
Pollutant	lb/hr	g/hp-hr	Source
NO _x	0.031		Existing Permit
*SO _x		0.0051	Mass Balance Equation Below
PM ₁₀	0.0022		Existing Permit
CO	0.0033		Existing Permit
VOC	0.0025		Existing Permit

Diesel-fired IC Engine Emission Factors (C-1059-21-2)		
Pollutant	g/hp-hr	Source
NO _x	5.46	Existing Permit
*SO _x	0.0051	Mass Balance Equation Below
PM ₁₀	0.103	Existing Permit
CO	0.35	Existing Permit
VOC	0.13	Existing Permit

Diesel-fired IC Engine Emission Factors (C-1059-22-2 and -23-2)		
Pollutant	g/hp-hr	Source
NO _x	5.68	Existing Permit
*SO _x	0.0051	Mass Balance Equation Below
PM ₁₀	0.06	Existing Permit
CO	0.55	Existing Permit
VOC	0.04	Existing Permit

Diesel-fired IC Engine Emission Factors (C-1059-25-0)		
Pollutant	g/hp-hr	Source
NO _x	3.83	Existing Permit
*SO _x	0.0051	Mass Balance Equation Below
PM ₁₀	0.10	Existing Permit
CO	1.19	Existing Permit
VOC	0.20	Existing Permit

Diesel-fired IC Engine Emission Factors (C-1059-27-0)		
Pollutant	g/hp-hr	Source
NO _x	3.78	Engine Manufacturer
*SO _x	0.0051	Mass Balance Equation Below
PM ₁₀	0.09	Engine Manufacturer
CO	0.67	Engine Manufacturer
VOC	0.19	Engine Manufacturer

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

C. Calculations

1. Pre-Project Potential to Emit (PE1)

C-1059-3-2 and -4-2

The daily and annual PE1 for NO_x, CO, VOC, and PM10 is calculated as follows:

$$\text{Daily PE1 (lb-pollutant/day)} = \text{EF (lb-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/day)}$$

$$\text{Annual PE1 (lb-pollutant/yr)} = \text{EF (lb-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/yr)}$$

The daily and annual PE1 for SO_x, is calculated as follows:

$$\text{Daily PE1 (lb-pollutant/day)} = \text{EF (g-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/day)} / 453.6 \text{ g/lb}$$

$$\text{Annual PE1 (lb-pollutant/yr)} = \text{EF (g-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/yr)} / 453.6 \text{ g/lb}$$

Pre Project Emissions (PE1)						
Pollutant	Emissions Factor	Rating (bhp)	Daily Hours of Operation (hrs/day)	Annual Hours of Operation (hrs/year)	Daily PE1 (lb/day)	Annual PE1 (lb/yr)
NO _x	0.013	749	24	40	233.7	389
SO _x	0.0051	749	24	40	0.2	0
PM ₁₀	0.0009	749	24	40	16.2	27
CO	0.0033	749	24	40	59.3	99
VOC	0.003	749	24	40	5.46	90

C-1059-5-2

The daily and annual PE1 for NO_x, CO, VOC, and PM10 is calculated as follows:

$$\text{Daily PE1 (lb-pollutant/day)} = \text{EF (lb-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/day)}$$

$$\text{Annual PE1 (lb-pollutant/yr)} = \text{EF (lb-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/yr)}$$

The daily and annual PE1 for SO_x, is calculated as follows:

$$\text{Daily PE1 (lb-pollutant/day)} = \text{EF (g-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/day)} / 453.6 \text{ g/lb}$$

$$\text{Annual PE1 (lb-pollutant/yr)} = \text{EF (g-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/yr)} / 453.6 \text{ g/lb}$$

Pre Project Emissions (PE1)						
Pollutant	Emissions Factor	Rating (bhp)	Daily Hours of Operation (hrs/day)	Annual Hours of Operation (hrs/year)	Daily PE1 (lb/day)	Annual PE1 (lb/yr)
NO _x	0.031	2,847	24	40	2118.2	3,530
SO _x	0.0051	2,847	24	40	0.8	1
PM ₁₀	0.0022	2,847	24	40	150.3	251
CO	0.0033	2,847	24	40	225.5	376
VOC	0.0025	2,847	24	40	5.46	285

C-1059-21-2

The daily and annual PE1 are calculated as follows:

$$\text{Daily PE1 (lb-pollutant/day)} = \text{EF (g-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/day)} / 453.6 \text{ g/lb}$$

$$\text{Annual PE1 (lb-pollutant/yr)} = \text{EF (g-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/yr)} / 453.6 \text{ g/lb}$$

Pre Project Emissions (PE1)						
Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Daily Hours of Operation (hrs/day)	Annual Hours of Operation (hrs/year)	Daily PE1 (lb/day)	Annual PE1 (lb/yr)
NO _x	5.46	2,847	24	50	822.5	1,713
SO _x	0.0051	2,847	24	50	0.8	2
PM ₁₀	0.103	2,847	24	50	15.5	32
CO	0.35	2,847	24	50	52.7	110
VOC	0.13	2,847	24	50	19.6	41

C-1059-22-2 and -23-2

The daily and annual PE1 are calculated as follows:

$$\text{Daily PE1 (lb-pollutant/day)} = \text{EF (g-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/day)} / 453.6 \text{ g/lb}$$

$$\text{Annual PE1 (lb-pollutant/yr)} = \text{EF (g-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/yr)} / 453.6 \text{ g/lb}$$

Pre Project Emissions (PE1)						
Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Daily Hours of Operation (hrs/day)	Annual Hours of Operation (hrs/year)	Daily PE1 (lb/day)	Annual PE1 (lb/yr)
NO _x	5.68	972	24	50	292.1	609
SO _x	0.0051	972	24	50	0.3	1
PM ₁₀	0.06	972	24	50	3.1	6
CO	0.55	972	24	50	28.3	59
VOC	0.04	972	24	50	2.1	4

C-1059-25-0

The daily and annual PE1 are calculated as follows:

$$\text{Daily PE1 (lb-pollutant/day)} = \text{EF (g-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/day)} / 453.6 \text{ g/lb}$$

$$\text{Annual PE1 (lb-pollutant/yr)} = \text{EF (g-pollutant/bhp-hr)} \times \text{rating (bhp)} \times \text{operation (hr/yr)} / 453.6 \text{ g/lb}$$

Pre Project Emissions (PE1)						
Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Daily Hours of Operation (hrs/day)	Annual Hours of Operation (hrs/year)	Daily PE1 (lb/day)	Annual PE1 (lb/yr)
NO _x	3.83	1,502	24	50	304.4	634
SO _x	0.0051	1,502	24	50	0.4	1
PM ₁₀	0.10	1,502	24	50	7.9	17
CO	1.19	1,502	24	50	94.6	197
VOC	0.20	1,502	24	50	15.9	33

C-1059-27-0

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

2. Post-Project Potential to Emit (PE2)

C-1059-3-3, -4-3, -21-3, -22-3, -23-3, and -25-1

Since no changes are proposed to the emission factors, engine rating or hours of operation for these emissions units, PE2 = PE1 as shown above.

C-1059-27-0

The daily and annual PE2 are calculated as follows:

$$\text{Daily PE2 (lb-pollutant/day)} = \text{EF (g-pollutant/bhp-hr)} \times \text{rating (bhp)} \\ \times \text{operation (hr/day)} / 453.6 \text{ g/lb}$$

$$\text{Annual PE2 (lb-pollutant/yr)} = \text{EF (g-pollutant/bhp-hr)} \times \text{rating (bhp)} \\ \times \text{operation (hr/yr)} / 453.6 \text{ g/lb}$$

Post Project Emissions (PE2) (C-1059-27-0)						
Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Daily Hours of Operation (hrs/day)	Annual Hours of Operation (hrs/year)	Daily PE2 (lb/day)	Annual PE2 (lb/yr)
NO _x	3.78	2,937	24	50	587.4	1,224
SO _x	0.0051	2,937	24	50	0.8	2
PM ₁₀	0.09	2,937	24	50	14.0	29
CO	0.67	2,937	24	50	104.1	217
VOC	0.19	2,937	24	50	29.5	62

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.

The SSPE1 can be calculated by adding the PE1 from all units with valid ATCs or PTOs and the sum of the ERCs that have been banked at the source and which have not been used on-site (Total_{ERC}).

$$\text{SSPE1}_{\text{Total}} = \text{SSPE1}_{\text{Permit Unit}} + \text{Total}_{\text{ERC}}$$

Pre Project Stationary Source Potential to Emit [SSPE1] (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
C-1059-2-4* *Removed w/ATC -26-0	0	0	0	0	0
C-1059-3-2	7,232	0	27	99	90
C-1059-4-2		0	27	99	90
C-1059-5-2		228	251	763	285
C-1059-21-2		2	32	110	41
C-1059-22-2		1	6	59	4
C-1059-23-2		1	6	59	4
C-1059-25-0		1	17	197	33
C-1059-12-3		315	72	10	630
C-1059-17-0	166	0	12	36	13
C-1059-19-3	10,239	877	4,598	62,536	4,414
C-1059-20-3					
C-1059-24-0	162	26	68	666	50
ATC C-1059-26-0	710	26	42	1,300	25
SSPE1_{Permit Unit}	18,824	1,234	5,096	66,554	5,085
ERC C-456-3	0	0	0	25,796	0
Total _{ERC}	0	0	0	25,796	0
SSPE1	18,824	1,234	5,096	92,350	5,085

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.

The SSPE2 can be calculated by adding the PE2 from all units with valid ATCs or PTOs and the sum of the ERCs that have been banked at the source and which have not been used on-site (Total_{ERC}).

$$SSPE2_{Total} = SSPE2_{Permit Unit} + Total_{ERC}$$

Post Project Stationary Source Potential to Emit [SSPE2] (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
C-1059-2-4*	7,232	0	0	0	0
*Removed w/ATC -26-0		0	0	0	0
C-1059-3-3		0	27	99	90
C-1059-4-3		0	27	99	90
C-1059-21-3		2	32	110	41
C-1059-22-3		1	6	59	4
C-1059-23-3		1	6	59	4
C-1059-25-1		1	17	197	33
C-1059-27-0		2	29	217	62
C-1059-5-2*	0	0	0	0	0
Removed w/ATC -27-0	0	0	0	0	0
C-1059-12-3	315	72	10	630	36
C-1059-17-0	166	0	12	36	13
C-1059-19-3	10,239	877	4,598	62,536	4,414
C-1059-20-3					
C-1059-24-0	162	26	68	666	50
ATC C-1059-26-0	710	26	42	1,300	25
SSPE2_{Permit Unit}	18,824	1,008	4,874	66,008	4,862
ERC C-456-3	0	0	0	25,796	0
Total _{ERC}	0	0	0	25,796	0
SSPE2	18,824	1,008	4,874	91,804	4,862

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), pursuant to the Clean Air Act, Title 3, Section 302, US Codes 7602(j) and (z)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 70.2

Rule 2201 Major Source Determination (lb/year)						
	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO	VOC
SSPE1	18,824	1,234	5,096	5,096	66,554	5,085
SSPE2	18,824	1,008	4,874	4,874	66,008	4,862
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No	No

Note: PM2.5 assumed to be equal to PM10

As seen in the table above, the facility is not an existing Major Source and 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 not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
Estimated Facility PE before Project Increase	9.4	2.5	0.6	46.2	2.4	2.4
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	No	No	No	No	No

As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

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.

C-1059-3-3, -4-3, -21-3, -22-3, -23-3, and -25-1:

As calculated in Section VII.C.1 above, PE1 is summarized in the following table:

BE (lb/year)						
	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO	VOC
C-1059-3-3	389	0	27	27	99	90
C-1059-4-3	389	0	27	27	99	90
C-1059-21-3	1,713	2	32	32	110	41
C-1059-22-3	609	1	6	6	59	4
C-1059-23-3	609	1	6	6	59	4
C-1059-25-1	634	1	17	17	197	33

C-1059-27-0:

Since this is a new emissions unit, BE = PE1 = 0 for all pollutants.

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 and no further discussion is required.

8. Federal Major Modification / New Major Source

Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a “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 and no further discussion is required.

New Major Source

As demonstrated above, this facility is not becoming a Major Source as a result of this project, therefore, this facility is not a New Major Source pursuant to 40 CFR 51.165 a(1)(iv)(A)(3).

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

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- NO₂ (as a primary pollutant)
- SO₂ (as a primary pollutant)
- CO
- PM
- PM₁₀

I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

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). The PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
Total PE from New and Modified Units	2.8	0.2	0	0.4	0.1	0.1
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	No	No	No	No	No	No

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis 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 G](#).

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

Pursuant to District Rule 2201, Section 4.1, BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

- 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 Adjusted Increase in Permitted Emissions (AIPE) exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 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

Unit -27-0:

Section 4.2.6 of this rule exempts Routine Replacements from BACT. The new engine qualifies as a Routine Replacement under Rule 2201, Section 3.35. Routine Replacements must meet the following criteria:

3.35.1 – no increase in permitted emissions from the replacement engine;

Since the potential to emit of the replacement engine is less than the engine being replaced (see Sections VII.C.1 and 2 of this application review), this requirement is met.

3.35.2 – can have up to a 10% increase in design capacity, if the identical engine is not available;

The replacement engine has a higher bhp rating than the engine being replaced; however, the replacement engine horsepower rating is not more than 10% larger than the bhp rating of the engine being replaced.

3.35.3 – the replacement will perform the same function;

The replacement engine and the engine being replaced power electrical generators.

3.35.4 – replacing an electrical generator engine will not result in a Reconstructed Source or a Reconstruction;²

Given the known large capital costs of owning and operating a hospital, the cost of the engine from this project is not going to exceed 50% of the cost of the medical operation as a whole.

3.35.5 – Must be subject to a BARCT rule;

Emergency IC engines are subject to Rule 4702, which is a BARCT rule.

The engine in this project meets all of the criteria listed above; therefore, it qualifies as a routine replacement and is exempt from BACT.

The following ATC condition will ensure compliance with the applicant's replacement proposal:

² A Reconstructed Source occurs when the fixed capital cost of the new components (e.g. new engine(s)) exceeds 50% of the fixed capital cost of a comparable, entirely new Stationary Source. Reconstructed Source cost shall include only the cost of all emission-producing equipment and associated integral activities at the stationary source. A reconstructed Stationary Source shall be considered a new Stationary Source and not as a modification of an existing Stationary Source.

- {4830} Within 90 days after startup of the equipment authorized by this Authority to Construct, Permit to Operate C-1029-5 shall be surrendered to the District and the associated equipment shall be removed or rendered inoperable. [District Rule 2201]

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

Units C-1059-3-3, -4-3, -21-3, -22-3, -23-3, and -25-1

$$\text{AIPE} = \text{PE}_2 - \text{HAPE}$$

Where,

AIPE = Adjusted Increase in Permitted Emissions, (lb/day)

PE₂ = Post-Project Potential to Emit, (lb/day)

HAPE = Historically Adjusted Potential to Emit, (lb/day)

$$\text{HAPE} = \text{PE}_1 \times (\text{EF}_2/\text{EF}_1)$$

Where,

PE₁ = The emissions unit's PE prior to modification or relocation, (lb/day)

EF₂ = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF₂ is greater than EF₁ then EF₂/EF₁ shall be set to 1

EF₁ = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

$$\text{AIPE} = \text{PE}_2 - (\text{PE}_1 * (\text{EF}_2 / \text{EF}_1))$$

The proposed modifications to the existing engines in this project will not result in any changes to the daily and annual operating schedule, engine rating, or the emission factor. Therefore AIPE will be equal to 0 for all existing engines in this project and 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 any pollutant. Therefore BACT is not triggered for any pollutant.

B. Offsets

1. Offset Applicability

Pursuant to District Rule 2201, Section 4.5, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2	18,824	1,008	4,874	66,008	4,862
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	No	No	No	No	No

2. Quantity of Offsets Required

As seen above, the SSPE2 is not greater than the offset thresholds for all the pollutants; therefore offset calculations are not necessary and offsets will not be required for this project.

C. Public Notification

1. Applicability

Pursuant to District Rule 2201, Section 5.4, public noticing is required for:

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

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

As shown in Section VII.C.5 above, this existing minor source facility is not becoming a Major Source as a result of this project. Therefore, this facility is not a New Major Source and this project does not constitute an SB 288 or a Federal Major Modification. Consequently, public noticing for this project for New Major Source, Federal Major Modification, or SB 288 Major Modification purposes is not required.

b. PE > 100 lb/day

Unit -27-0:

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	Public Notice Triggered?
NO _x	587.4	100 lb/day	Yes
SO _x	0.8	100 lb/day	No
PM ₁₀	29	100 lb/day	No
CO	104.1	100 lb/day	Yes
VOC	62	100 lb/day	No

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

c. Offset Threshold

Public notification is required if the pre-project Stationary Source Potential to Emit (SSPE1) is increased to a level exceeding the offset threshold levels. The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x	18,824	18,824	20,000 lb/year	No
SO _x	1,234	1,008	54,750 lb/year	No
PM ₁₀	5,096	4,874	29,200 lb/year	No
CO	92,350	91,804	200,000 lb/year	No
VOC	5,085	4,862	20,000 lb/year	No

As demonstrated 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	18,824	18,824	0	20,000 lb/year	No
SO _x	1,008	1,234	-226	20,000 lb/year	No
PM ₁₀	4,874	5,096	-222	20,000 lb/year	No
CO	91,804	92,350	-546	20,000 lb/year	No
VOC	4,862	5,085	-223	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.

e. Title V Significant Permit Modification

Since this facility does not have a Title V operating permit, this change is not a Title V significant Modification, and therefore public noticing is not required.

2. Public Notice Action

As discussed above, public noticing is required for this project for NO_x and CO 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 electronically published on the District’s website prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit’s maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. 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 IC engine, the DELs are stated in the form of emission factors (g/hp-hr), the maximum engine horsepower rating, and the maximum operational time of 24 hours per day.

Proposed Rule 2201 (DEL) Conditions:

Units -3 and -4:

- Combined annual NOx emissions from all permitted emergency backup engines powering electrical generators at this facility shall not exceed 7,232 lb-NOx/year. [District Rule 2201]
- {4771} Emissions from this IC engine shall not exceed any of the following limits: 0.013 lb-NOx/bhp-hr, 0.0033 lb-CO/bhp-hr, or 0.003 lb-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
- {4772} Emissions from this IC engine shall not exceed 0.0009 lb-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
- {4258} 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]

Unit -21-0:

- Combined annual NOx emissions from all permitted emergency backup engines powering electrical generators at this facility shall not exceed 7,232 lb-NOx/year. [District Rule 2201]
- {4771} Emissions from this IC engine shall not exceed any of the following limits: 5.46 g-NOx/bhp-hr, 0.35 g-CO/bhp-hr, or 0.13 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
- {4772} Emissions from this IC engine shall not exceed 0.103 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
- {4258} 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]

Units -22- and -23:

- Combined annual NOx emissions from all permitted emergency backup engines powering electrical generators at this facility shall not exceed 7,232 lb-NOx/year. [District Rule 2201]
- {4771} Emissions from this IC engine shall not exceed any of the following limits: 5.68 g-NOx/bhp-hr, 0.55 g-CO/bhp-hr, or 0.04 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]

- {4772} Emissions from this IC engine shall not exceed **0.06** g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
- {4258} 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]

Unit -25-0:

- Combined annual NOx emissions from all permitted emergency backup engines powering electrical generators at this facility shall not exceed 7,232 lb-NOx/year. [District Rule 2201]
- {4771} Emissions from this IC engine shall not exceed any of the following limits: 3.83 g-NOx/bhp-hr, 1.19 g-CO/bhp-hr, or 0.20 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
- {4772} Emissions from this IC engine shall not exceed **0.10** g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
- {4258} 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]

Unit -27:

- Combined annual NOx emissions from all permitted emergency backup engines powering electrical generators at this facility shall not exceed 7,232 lb-NOx/year. [District Rule 2201]
- {4771} Emissions from this IC engine shall not exceed any of the following limits: 3.78 g-NOx/bhp-hr, 0.67 g-CO/bhp-hr, or 0.19 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
- {4772} Emissions from this IC engine shall not exceed **0.09** g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
- {4258} 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 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. The following condition(s) are listed on the permit to operate:

- All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 17 CCR 93115]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

Section 4.14 of District Rule 2201 requires that an AAQA be 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 2410 Prevention of Significant Deterioration

As shown in Section VII.C.9 above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

Rule 2520 Federally Mandated Operating Permits

Since this facility's potential emissions do 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 IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

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

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

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

The 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 person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). Therefore, the following condition will be included on all ATCs in this project as a mechanism to enforce 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 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected, and the following condition will be included on all ATCs in this project:

- {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* 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. For this project, only the new unit (-27-0) was evaluated since the existing units did not have an increase in emissions.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification of an existing source shall not result in an increase in cancer risk greater than the District’s significance level (20 in a million) and shall not result in acute and/or chronic risk indices greater than 1.

According to the Technical Services Memo for this project, the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The resulting prioritization score, acute hazard index, chronic hazard index, and cancer risk for this project is shown below.

Health Risk Assessment Summary (C-1029-27-0)	
	Worst Case Potential
Prioritization Score	N/A
Cancer Risk	1.7 E-06
Acute Hazard Index	N/A
Chronic Hazard Index	0.00
T-BACT Required?	Yes

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, 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 PM₁₀. T-BACT is satisfied with BACT for PM₁₀ (see [Appendix E](#)), which is 0.15 g/bhp-hr or the Latest EPA Tier Certification level for applicable horsepower range, whichever is more stringent; therefore, compliance with the District’s Risk Management Policy is expected.

In accordance with District policy APR 1905, no further analysis is required, and compliance with District Rule 4102 requirements is expected.

See Attachment [F](#): Health Risk Assessment Summary

The following permit conditions are required to ensure compliance with the assumptions made for the risk management review:

- The PM10 emissions rate shall not exceed **0.09** g/bhp-hr based on US EPA certification using ISO 8178 test procedure.
- 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.
- 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.

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot which, as calculated below, is equivalent to a PM₁₀ emission factor of 0.4 g-PM₁₀/bhp-hr (0.0009 lb-PM₁₀/bhp-hr).

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

The existing and proposed engines have a PM₁₀ emission factor less than or equal to 0.4 g/bhp-hr (0.0009 lb-PM₁₀/bhp-hr); therefore, compliance is expected and the following condition will be included on the ATC as a mechanism to enforce compliance:

- {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 engines are also subject to District Rule 4702. Since emissions limits of Rule 4702 and all other requirements are equivalent or more stringent than Rule 4701, compliance with Rule 4702 requirements will satisfy applicable requirements of this rule.

Rule 4702 Internal Combustion Engines

Emergency standby engines are subject to District Rule 4702 requirements. Emergency standby engines are defined in Section 3.0 of District Rule 4702 as follows:

3.15 Emergency Standby Engine: 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.

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. The following conditions will be included on the permits:

- {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 and 17 CCR 93115]
- {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 and 17 CCR 93115]

The 100 hour requirement is less stringent than the Air Toxic Control Measure operating limitations for emergency standby engines. Therefore, compliance with the applicable Air Toxic Control Measure requirements ensures compliance with the 100 hour requirement.

Operation of emergency standby engines are limited to 100 hours or less per calendar year for non-emergency purposes. The Air Toxic Control Measure for Stationary Compression Ignition Engines (Stationary ATCM) limits maintenance and testing to either 40 or 50 hours/year depending on the PM₁₀ emissions; therefore, compliance is expected. The following conditions will be included on the permit depending on the PM₁₀ emissions of the engine:

Units -3, and -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 40 hours per calendar year. [District Rules 2201, 4102, and 4702, and 17 CCR 93115]

Units -21, -22, -23, -25 and -27

- {4920} 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, 4102, and 4702, and 17 CCR 93115]

The following exemption in Section 4.2 of District Rule 4702 applies to emergency standby engines:

4.2 Except for the requirements of Section 5.9 and Section 6.2.3, the requirements of this rule shall not apply to:

4.2.1 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.

Pursuant to the exemption in Section 4.2, the following requirements of Section 5.9 are applicable to emergency standby engines

Section 5.9 requires the owner to:

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

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

5.9.4 Install and operate a nonresettable elapsed 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 Permit-Exempt 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.

Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier. The following condition will be included on the permits:

- {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]

Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier. The following condition will be included on the permits:

- {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]

Install and operate a nonresettable elapsed time meter. In lieu of installing a nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and EPA and is allowed by Permit-to-Operate condition. The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions. The following condition will be included on the permits:

- {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]

The exemption in Rule 4702 Section 4.2 for emergency standby engines requires the engines to comply with Section 6.2.3, shown below.

6.2.3 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 provided to the APCO upon request. The records shall include, but are not limited to, the following:

6.2.3.1 Total hours of operation,

6.2.3.2 The type of fuel used,

6.2.3.3 The purpose for operating the engine,

6.2.3.4 For emergency standby engines, all hours of non-emergency and emergency operation shall be reported, and

6.2.3.5 Other support documentation necessary to demonstrate claim to the exemption.

Records of the total hours of operation, type of fuel used, purpose for operating the engine, all hours of non-emergency and emergency operation, and other 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. The following conditions will be included on the permits:

- {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]
- All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201, 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:

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

Where;

n = moles SO₂

T = standard temperature: 60 °F or 520 °R

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

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

Since 1.0 ppmv is ≤ 2,000 ppmv, this engine is expected to comply with Rule 4801. The following condition will be included on the ATC as a mechanism to enforce compliance:

- {4258} 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]

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

The following requirements apply to in-use engines (those installed before 1/1/05) units -3, -4 and -21:

<p>Title 17 CCR Section 93115 Requirements for In-Use Emergency IC Engines Powering Electrical Generators</p>	<p>Proposed Method of Compliance with Title 17 CCR Section 93115 Requirements</p>
<p>Emergency engine(s) must be fired on CARB diesel fuel, or an approved alternative diesel fuel.</p>	<p>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.</p>
<p>40 annual hours of operation are allowed for maintenance and testing purposes at a health facility if the diesel PM emission rate is greater than 0.15 g/bhp-hr but less than or equal to 0.40 g/bhp-hr.</p> <p>50 annual hours of operation are allowed for maintenance and testing purposes if the diesel PM emission rate is less than or equal to 0.15 g/bhp-hr.</p>	<p>The following conditions will be included on the permits depending on their PM₁₀ emission factor:</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 40 hours per calendar year. [District Rules 2201 and 4702, and 17 CCR 93115] • {4920} 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>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</p>	<p>The District has verified that this engine is not located within 500' of a school.</p>
<p>A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed upon engine installation, or by no later than January 1, 2005, on all engines subject to all or part of the requirements of sections 93115.6,</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

<p>93115.7, or 93115.8(a) unless the District determines on a case-by-case basis 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.</p>	<p>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>
<p>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.</p>	<p>Permit conditions enforcing these requirements were shown earlier in the evaluation.</p>

The following requirements apply to new engines (those installed after 1/1/05) units -22, -23, -25 and -27:

<p>Title 17 CCR Section 93115 Requirements for New Emergency IC Engines Powering Electrical Generators</p>	<p>Proposed Method of Compliance with Title 17 CCR Section 93115 Requirements</p>
<p>Emergency engine(s) must be fired on CARB diesel fuel, or an approved alternative diesel fuel.</p>	<p>The applicant has proposed the use of CARB certified diesel fuel. The proposed permit condition, requiring the use of CARB certified diesel fuel, is included on the permit.</p> <ul style="list-style-type: none"> {4258} 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]
<p>The engine(s) must meet the emission standards in Table 1 of the ATCM for the specific power rating and model year of the proposed engine.</p>	<p>The applicant has proposed the use of an engine that is certified to the latest EPA Tier Certification standards for the applicable horsepower range, guaranteeing compliance with the emission standards of the ATCM. Additionally, the proposed diesel PM emissions rate is less than or equal to 0.15 g/bhp-hr.</p>
<p>The engine may not be operated more than 50 hours per year for maintenance and testing purposes unless the PM emissions are \leq 0.01 g/bhp-hr, then the engine is allowed 100 hours per year. Emissions from this engine are certified at 0.06 g/bhp-hr, 0.1 g/bhp-hr, and 0.09 g/bhp-hr, therefore the engines are allowed 50 hours.</p>	<p>The following conditions will be included on the permit for each engine:</p> <p>Units 22 and 23</p> <ul style="list-style-type: none"> {4772} Emissions from this IC engine shall not exceed 0.06 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]

	<p>Unit 25</p> <ul style="list-style-type: none"> {4772} Emissions from this IC engine shall not exceed 0.1 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115] <p>Unit 27</p> <ul style="list-style-type: none"> {4772} Emissions from this IC engine shall not exceed 0.09 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115] <p>All units</p> <ul style="list-style-type: none"> {4920} 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, 4102, and 4702, and 17 CCR 93115]
<p>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</p>	<p>The District has verified that this engine is not located within 500' of a school.</p>
<p>A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed upon engine installation, or by no later than January 1, 2005, on all engines subject to all or part of the requirements of sections 93115.6, 93115.7, or 93115.8(a) unless the District determines on a case-by-case basis 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.</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>The following condition will be included on the permit:</p>

<p>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.</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]
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California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality Act (CEQA)

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

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

Greenhouse Gas (GHG) Significance Determination

District is a Lead Agency & GHG emissions increases are from the combustion of fossil fuel other than jet fuels

It is determined that no other agency has prepared or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

On December 17, 2009, the District's Governing Board adopted a policy, APR 2005, *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When*

Serving as the Lead Agency, for addressing GHG emission impacts when the District is Lead Agency under CEQA and approved the District's guidance document for use by other agencies when addressing GHG impacts as lead agencies under CEQA. Under this policy, the District's determination of significance of project-specific GHG emissions is founded on the principal that projects with GHG emission reductions consistent with AB 32 emission reduction targets are considered to have a less than significant impact on global climate change. Consistent with District Policy 2005, projects complying with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, would be determined to have a less than significant individual and cumulative impact for GHG emission.

The California Air Resources Board (ARB) adopted a Cap-and-Trade regulation as part one of the strategies identified for AB 32. This Cap-and-Trade regulation is a statewide plan, supported by a CEQA compliant environmental review document, aimed at reducing or mitigating GHG emissions from targeted industries. Facilities subject to the Cap-and-Trade regulation are subject to an industry-wide cap on overall GHG emissions. Any growth in emissions must be accounted for under that cap such that a corresponding and equivalent reduction in emissions must occur to allow any increase. Further, the cap decreases over time, resulting in an overall decrease in GHG emissions.

Under District policy APR 2025, *CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation*, the District finds that the Cap-and-Trade is a regulation plan approved by ARB, consistent with AB32 emission reduction targets, and supported by a CEQA compliant environmental review document. As such, consistent with District Policy 2005, projects complying with Cap-and-Trade requirements are determined to have a less than significant individual and cumulative impact for GHG emissions.

The GHG emissions increases associated with this project result from the combustion of fossil fuel(s), other than jet fuel, delivered from suppliers subject to the Cap-and-Trade regulation. Therefore, as discussed above, consistent with District Policies APR 2005 and APR 2025, the District concludes that the GHG emissions increases associated with this project would have a less than significant individual and cumulative impact on global climate change.

District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing or former use. Furthermore, the District determined that the activity will not have a significant effect on the environment. Therefore, the District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15301 (Existing Facilities), and finds that the project is exempt per the common sense exemption

that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit is based on a case-by-case analysis of a particular project’s potential for litigation risk, which in turn may be based on a project’s potential to generate public concern, its potential for significant impacts, and the project proponent’s ability to pay for the costs of litigation without a letter of credit, among other factors.

The criteria pollutant emissions and toxic air contaminant emissions associated with the proposed project are not significant, and there is minimal potential for public concern for this particular type of facility/operation. Therefore, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATCs C-1059-3-3, C-1059-4-3, C-1059-21-3, C-1059-22-3, C-1059-23-3, C-1059-25-1, and C-1059-27-0 subject to the permit conditions on the attached draft ATC in [Appendix A](#).

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
C-1059-3-3	3020-10-D	749 hp IC engine	\$577
C-1059-4-3	3020-10-D	749 hp IC engine	\$577
C-1059-21-3	3020-10-F	2,847 hp IC engine	\$900
C-1059-22-3	3020-10-E	972 hp IC engine	\$723
C-1059-23-3	3020-10-E	972 hp IC engine	\$723
C-1059-25-1	3020-10-F	1,502 hp IC engine	\$900
C-1059-27-0	3020-10-F	2,937 hp IC engine	\$900

Appendixes

- A: Draft ATCs
- B: Current PTOs
- C: EPA Certified Emission Factors and Manufacturer's data sheet
- D: BACT Guideline
- E: T-BACT Analysis
- F: HRA Summary
- G: Quarterly Net Emissions Change

APPENDIX A
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-1059-3-3

LEGAL OWNER OR OPERATOR: SAINT AGNES MEDICAL CENTER
MAILING ADDRESS: 1303 E HERNDON AVE
FRESNO, CA 93720

LOCATION: 1360 E HERNDON AVE
FRESNO, CA 93720

EQUIPMENT DESCRIPTION:

MODIFICATION OF 749 BHP CATERPILLAR 3412 (S/N 81Z10682) DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (ENGINE #4): MODIFY SLC

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {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]
3. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. {4258} 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. Combined annual NOx emissions from all permitted emergency backup engines powering electrical generators at this facility shall not exceed 7,232 lb-NOx/year. [District Rule 2201]
8. Emissions from this IC engine shall not exceed any of the following limits: 0.013 lb-NOx/bhp-hr, 0.0033 lb-CO/bhp-hr, or 0.003 lb-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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.

Samir Sheikh, Executive Director / APCCO

Arnaud Marjollet, Director of Permit Services

C-1059-3-3 : Dec 14 2020 8:13AM -- OGDENA : Joint Inspection NOT Required

9. Emissions from this IC engine shall not exceed 0.0009 lb-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rule 2201 and 17 CCR 93115]
10. {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]
11. {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]
12. {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 and 17 CCR 93115]
13. {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 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. 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 40 hours per calendar year. [District Rules 2201, 4102, and 4702, and 17 CCR 93115]
16. The permittee shall maintain records of the combined annual NOx emissions of all permitted emergency backup engines powering electrical generators at this facility. [District Rule 2201]
17. {4263} The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
18. On a monthly basis, the permittee shall calculate and record the monthly NOx emissions from this unit. [District Rule 2201]
19. On a monthly basis, the permittee shall calculate and record the facility-wide NOx emissions in pounds for the rolling 12-month period. The facility-wide NOx emissions shall be calculated by summing the NOx emissions from the previous 12 months from every permitted unit at this facility. [District Rule 2201]
20. {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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-1059-4-3

LEGAL OWNER OR OPERATOR: SAINT AGNES MEDICAL CENTER
MAILING ADDRESS: 1303 E HERNDON AVE
FRESNO, CA 93720

LOCATION: 1360 E HERNDON AVE
FRESNO, CA 93720

EQUIPMENT DESCRIPTION:

MODIFICATION OF 749 BHP CATERPILLAR 3412 S/N 81210671 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (ENGINE #5): MODIFY SLC

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {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]
3. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. {4258} 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. Combined annual NOx emissions from all permitted emergency backup engines powering electrical generators at this facility shall not exceed 7,232 lb-NOx/year. [District Rule 2201]
8. Emissions from this IC engine shall not exceed any of the following limits: 0.013 lb-NOx/bhp-hr, 0.0033 lb-CO/bhp-hr, or 0.003 lb-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

C-1059-4-3 : Dec 14 2020 8:13AM -- OGDENA : Joint Inspection NOT Required

9. Emissions from this IC engine shall not exceed 0.0009 lb-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rule 2201 and 17 CCR 93115]
10. {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]
11. {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]
12. {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 and 17 CCR 93115]
13. {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 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. 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 40 hours per calendar year. [District Rules 2201, 4102, and 4702, and 17 CCR 93115]
16. The permittee shall maintain records of the combined annual NO_x emissions of all permitted emergency backup engines powering electrical generators at this facility. [District Rule 2201]
17. {4263} The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
18. On a monthly basis, the permittee shall calculate and record the monthly NO_x emissions from this unit. [District Rule 2201]
19. On a monthly basis, the permittee shall calculate and record the facility-wide NO_x emissions in pounds for the rolling 12-month period. The facility-wide NO_x emissions shall be calculated by summing the NO_x emissions from the previous 12 months from every permitted unit at this facility. [District Rule 2201]
20. {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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-1059-21-3

LEGAL OWNER OR OPERATOR: SAINT AGNES MEDICAL CENTER

MAILING ADDRESS: 1303 E HERNDON AVE
FRESNO, CA 93720

LOCATION: 1360 E HERNDON AVE
FRESNO, CA 93720

EQUIPMENT DESCRIPTION:

MODIFICATION OF 2,847 BHP CATERPILLAR MODEL 3516B DIESEL-FIRED EMERGENCY STANDBY IC ENGINE
POWERING AN ELECTRICAL GENERATOR: MODIFY SLC

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {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]
3. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. {4258} 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. Combined annual NOx emissions from units all permitted emergency backup engines powering electrical generators at this facility shall not exceed 7,232 lb-NOx/year. [District Rule 2201]
8. Emissions from this IC engine shall not exceed any of the following limits: 5.46 g-NOx/bhp-hr, 0.35 g-CO/bhp-hr, or 0.13 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

C-1059-21-3 : Dec 14 2020 8:20AM -- OGDENA : Joint Inspection NOT Required

9. Emissions from this IC engine shall not exceed 0.103 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
10. {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]
11. {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]
12. {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 and 17 CCR 93115]
13. {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 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. {4920} 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, 4102, and 4702, and 17 CCR 93115]
16. The permittee shall maintain records of the combined annual NO_x emissions of units all permitted emergency backup engines powering electrical generators at this facility. [District Rule 2201]
17. {4263} The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
18. On a monthly basis, the permittee shall calculate and record the monthly NO_x emissions from this unit. [District Rule 2201]
19. On a monthly basis, the permittee shall calculate and record the facility-wide NO_x emissions in pounds for the rolling 12-month period. The facility-wide NO_x emissions shall be calculated by summing the NO_x emissions from the previous 12 months from every permitted unit at this facility. [District Rule 2201]
20. {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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-1059-22-3

LEGAL OWNER OR OPERATOR: SAINT AGNES MEDICAL CENTER

MAILING ADDRESS: 1303 E HERNDON AVE
FRESNO, CA 93720

LOCATION: 1360 E HERNDON AVE
FRESNO, CA 93720

EQUIPMENT DESCRIPTION:

MODIFICATION OF 972 BHP CATERPILLAR MODEL 3412 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE
POWERING AN ELECTRICAL GENERATOR: MODIFY SLC

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {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]
3. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. {4258} 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. Combined annual NOx emissions from all permitted emergency backup engines powering electrical generators at this facility shall not exceed 7,232 lb-NOx/year. [District Rule 2201]
8. Emissions from this IC engine shall not exceed any of the following limits: 5.68 g-NOx/bhp-hr, 0.55 g-CO/bhp-hr, or 0.04 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCCO

Arnaud Marjollet, Director of Permit Services

C-1059-22-3 : Dec 14 2020 8:20AM -- OGDENA : Joint Inspection NOT Required

9. Emissions from this IC engine shall not exceed 0.06 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
10. {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]
11. {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]
12. {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 and 17 CCR 93115]
13. {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 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. {4920} 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, 4102, and 4702, and 17 CCR 93115]
16. The permittee shall maintain records of the combined annual NOx emissions of all permitted emergency backup engines powering electrical generators at this facility. [District Rule 2201]
17. {4263} The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
18. On a monthly basis, the permittee shall calculate and record the monthly NOx emissions from this unit. [District Rule 2201]
19. On a monthly basis, the permittee shall calculate and record the facility-wide NOx emissions in pounds for the rolling 12-month period. The facility-wide NOx emissions shall be calculated by summing the NOx emissions from the previous 12 months from every permitted unit at this facility. [District Rule 2201]
20. {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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-1059-23-3

LEGAL OWNER OR OPERATOR: SAINT AGNES MEDICAL CENTER
MAILING ADDRESS: 1303 E HERNDON AVE
FRESNO, CA 93720

LOCATION: 1360 E HERNDON AVE
FRESNO, CA 93720

EQUIPMENT DESCRIPTION:

MODIFICATION OF 972 BHP CATERPILLAR MODEL 3412 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE
POWERING AN ELECTRICAL GENERATOR: MODIFY SLC

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {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]
3. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. {4258} 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. Combined annual NOx emissions from all permitted emergency backup engines powering electrical generators at this facility shall not exceed 7,232 lb-NOx/year. [District Rule 2201]
8. Emissions from this IC engine shall not exceed any of the following limits: 5.68 g-NOx/bhp-hr, 0.55 g-CO/bhp-hr, or 0.04 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

C-1059-23-3 : Dec 14 2020 8:20AM -- OGDENA : Joint Inspection NOT Required

9. Emissions from this IC engine shall not exceed 0.06 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
10. {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]
11. {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]
12. {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 and 17 CCR 93115]
13. {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 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. {4920} 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, 4102, and 4702, and 17 CCR 93115]
16. The permittee shall maintain records of the combined annual NOx emissions of all permitted emergency backup engines powering electrical generators at this facility. [District Rule 2201]
17. {4263} The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
18. On a monthly basis, the permittee shall calculate and record the monthly NOx emissions from this unit. [District Rule 2201]
19. On a monthly basis, the permittee shall calculate and record the facility-wide NOx emissions in pounds for the rolling 12-month period. The facility-wide NOx emissions shall be calculated by summing the NOx emissions from the previous 12 months from every permitted unit at this facility. [District Rule 2201]
20. {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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-1059-25-1

LEGAL OWNER OR OPERATOR: SAINT AGNES MEDICAL CENTER

MAILING ADDRESS: 1303 E HERNDON AVE
FRESNO, CA 93720

LOCATION: 1360 E HERNDON AVE
FRESNO, CA 93720

EQUIPMENT DESCRIPTION:

MODIFICATION OF 1,502 BHP (INTERMITTENT) CATERPILLAR MODEL C32 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR: MODIFY SLC

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {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]
3. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. {4258} 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. Combined annual NOx emissions from all permitted emergency backup engines powering electrical generators at this facility shall not exceed 7,232 lb-NOx/year. [District Rule 2201]
8. Emissions from this IC engine shall not exceed any of the following limits: 3.83 g-NOx/bhp-hr, 1.19 g-CO/bhp-hr, or 0.20 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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.

Samir Sheikh, Executive Director / APCCO

Arnaud Marjollet, Director of Permit Services

C-1059-25-1: Dec 14 2020 8:20AM -- OGDENA : Joint Inspection NOT Required

9. Emissions from this IC engine shall not exceed 0.10 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
10. {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]
11. {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]
12. {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 and 17 CCR 93115]
13. {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 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. {4920} 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, 4102, and 4702, and 17 CCR 93115]
16. The permittee shall maintain records of the combined annual NOx emissions of all permitted emergency backup engines powering electrical generators at this facility. [District Rule 2201]
17. {4263} The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
18. On a monthly basis, the permittee shall calculate and record the monthly NOx emissions from this unit. [District Rule 2201]
19. On a monthly basis, the permittee shall calculate and record the facility-wide NOx emissions in pounds for the rolling 12-month period. The facility-wide NOx emissions shall be calculated by summing the NOx emissions from the previous 12 months from every permitted unit at this facility. [District Rule 2201]
20. {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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-1059-27-0

LEGAL OWNER OR OPERATOR: SAINT AGNES MEDICAL CENTER

MAILING ADDRESS: 1303 E HERNDON AVE
FRESNO, CA 93720

LOCATION: 1360 E HERNDON AVE
FRESNO, CA 93720

EQUIPMENT DESCRIPTION:

2937 BHP (INTERMITTENT) CATERPILLAR MODEL 3516 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

CONDITIONS

1. Within 90 days of the startup of the equipment authorized by this Authority to Construct, Permit to Operate C-1059-5-2 shall be surrendered to the District and the associated equipment shall be removed or rendered inoperable. [District Rule 2201]
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. {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]
6. {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]
7. {4258} 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]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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.

Samir Sheikh, Executive Director / APCCO

Arnaud Marjollet, Director of Permit Services

C-1059-27-0 : Dec 14 2020 8:20AM -- OGDENA : Joint Inspection NOT Required

8. Combined annual NO_x emissions from all permitted emergency backup engines powering electrical generators at this facility shall not exceed 7,232 lb-NO_x/year. [District Rule 2201]
9. Emissions from this IC engine shall not exceed any of the following limits: 3.78 g-NO_x/bhp-hr, 0.67 g-CO/bhp-hr, or 0.19 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
10. Emissions from this IC engine shall not exceed 0.09 g-PM₁₀/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
11. {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]
12. {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]
13. {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 and 17 CCR 93115]
14. {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 and 17 CCR 93115]
15. {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]
16. {4920} 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, 4102, and 4702, and 17 CCR 93115]
17. The permittee shall maintain records of the combined annual NO_x emissions of all permitted emergency backup engines powering electrical generators at this facility. [District Rule 2201]
18. {4263} The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
19. On a monthly basis, the permittee shall calculate and record the monthly NO_x emissions from this unit. [District Rule 2201]
20. On a monthly basis, the permittee shall calculate and record the facility-wide NO_x emissions in pounds for the rolling 12-month period. The facility-wide NO_x emissions shall be calculated by summing the NO_x emissions from the previous 12 months from every permitted unit at this facility. [District Rule 2201]
21. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201, 4702 and 17 CCR 93115]

DRAFT

APPENDIX B

Current PTOs

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1059-3-2

EXPIRATION DATE: 04/30/2023

EQUIPMENT DESCRIPTION:

749 BHP CATERPILLAR 3412 (S/N 81Z10682) DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (ENGINE #4)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. 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]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. Combined annual NO_x emissions from units -3, -4, -5, -21, -22, -23, and -25 shall not exceed 7,232 lb-NO_x/year. [District Rule 2201]
8. Emissions from this IC engine shall not exceed any of the following limits: 0.013 lb-NO_x/bhp-hr, 0.0033 lb-CO/bhp-hr, or 0.003 lb-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
9. Emissions from this IC engine shall not exceed 0.0009 lb-PM₁₀/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rule 2201 and 17 CCR 93115]
10. 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]
11. 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]
12. 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 and 17 CCR 93115]
13. 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 and 17 CCR 93115]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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. 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 40 hours per calendar year. [District Rules 2201 and 4702, and 17 CCR 93115]
16. The permittee shall maintain records of the combined annual NOx emissions of units -3, -4, -5, -21, -22, -23, and -25. [District Rule 2201]
17. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
18. On a monthly basis, the permittee shall calculate and record the monthly NOx emissions from this unit. [District Rule 2201]
19. On a monthly basis, the permittee shall calculate and record the facility-wide NOx emissions in pounds for the rolling 12-month period. The facility-wide NOx emissions shall be calculated by summing the NOx emissions from the previous 12 months from every permitted unit at this facility. [District Rule 2201]
20. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1059-4-2

EXPIRATION DATE: 04/30/2023

EQUIPMENT DESCRIPTION:

749 BHP CATERPILLAR 3412 S/N 81210671 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (ENGINE #5)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. 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]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. Combined annual NO_x emissions from units -3, -4, -5, -21, -22, -23, and -25 shall not exceed 7,232 lb-NO_x/year. [District Rule 2201]
8. Emissions from this IC engine shall not exceed any of the following limits: 0.013 lb-NO_x/bhp-hr, 0.0033 lb-CO/bhp-hr, or 0.003 lb-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
9. Emissions from this IC engine shall not exceed 0.0009 lb-PM₁₀/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rule 2201 and 17 CCR 93115]
10. 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]
11. 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]
12. 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 and 17 CCR 93115]
13. 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 and 17 CCR 93115]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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. 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 40 hours per calendar year. [District Rules 2201 and 4702, and 17 CCR 93115]
16. The permittee shall maintain records of the combined annual NOx emissions of units -3, -4, -5, -21, -22, -23, and -25. [District Rule 2201]
17. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
18. On a monthly basis, the permittee shall calculate and record the monthly NOx emissions from this unit. [District Rule 2201]
19. On a monthly basis, the permittee shall calculate and record the facility-wide NOx emissions in pounds for the rolling 12-month period. The facility-wide NOx emissions shall be calculated by summing the NOx emissions from the previous 12 months from every permitted unit at this facility. [District Rule 2201]
20. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1059-21-2

EXPIRATION DATE: 04/30/2023

EQUIPMENT DESCRIPTION:

2,847 BHP CATERPILLAR MODEL 3516B DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. 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]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. Combined annual NO_x emissions from units -3, -4, -5, -21, -22, -23, and -25 shall not exceed 7,232 lb-NO_x/year. [District Rule 2201]
8. Emissions from this IC engine shall not exceed any of the following limits: 5.46 g-NO_x/bhp-hr, 0.35 g-CO/bhp-hr, or 0.13 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
9. Emissions from this IC engine shall not exceed 0.103 g-PM₁₀/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
10. 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]
11. 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]
12. 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 and 17 CCR 93115]
13. 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 and 17 CCR 93115]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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. 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]
16. The permittee shall maintain records of the combined annual NOx emissions of units -3, -4, -5, -21, -22, -23, and -25. [District Rule 2201]
17. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
18. On a monthly basis, the permittee shall calculate and record the monthly NOx emissions from this unit. [District Rule 2201]
19. On a monthly basis, the permittee shall calculate and record the facility-wide NOx emissions in pounds for the rolling 12-month period. The facility-wide NOx emissions shall be calculated by summing the NOx emissions from the previous 12 months from every permitted unit at this facility. [District Rule 2201]
20. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1059-22-2

EXPIRATION DATE: 04/30/2023

EQUIPMENT DESCRIPTION:

972 BHP CATERPILLAR MODEL 3412 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. 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]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. Combined annual NO_x emissions from units -3, -4, -5, -21, -22, -23, and -25 shall not exceed 7,232 lb-NO_x/year. [District Rule 2201]
8. Emissions from this IC engine shall not exceed any of the following limits: 5.68 g-NO_x/bhp-hr, 0.55 g-CO/bhp-hr, or 0.04 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
9. Emissions from this IC engine shall not exceed 0.06 g-PM₁₀/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
10. 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]
11. 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]
12. 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 and 17 CCR 93115]
13. 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 and 17 CCR 93115]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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. 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]
16. The permittee shall maintain records of the combined annual NOx emissions of units -3, -4, -5, -21, -22, -23, and -25. [District Rule 2201]
17. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
18. On a monthly basis, the permittee shall calculate and record the monthly NOx emissions from this unit. [District Rule 2201]
19. On a monthly basis, the permittee shall calculate and record the facility-wide NOx emissions in pounds for the rolling 12-month period. The facility-wide NOx emissions shall be calculated by summing the NOx emissions from the previous 12 months from every permitted unit at this facility. [District Rule 2201]
20. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1059-23-2

EXPIRATION DATE: 04/30/2023

EQUIPMENT DESCRIPTION:

972 BHP CATERPILLAR MODEL 3412 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. 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]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. Combined annual NO_x emissions from units -3, -4, -5, -21, -22, -23, and -25 shall not exceed 7,232 lb-NO_x/year. [District Rule 2201]
8. Emissions from this IC engine shall not exceed any of the following limits: 5.68 g-NO_x/bhp-hr, 0.55 g-CO/bhp-hr, or 0.04 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
9. Emissions from this IC engine shall not exceed 0.06 g-PM₁₀/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
10. 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]
11. 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]
12. 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 and 17 CCR 93115]
13. 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 and 17 CCR 93115]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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. 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]
16. The permittee shall maintain records of the combined annual NOx emissions of units -3, -4, -5, -21, -22, -23, and -25. [District Rule 2201]
17. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
18. On a monthly basis, the permittee shall calculate and record the monthly NOx emissions from this unit. [District Rule 2201]
19. On a monthly basis, the permittee shall calculate and record the facility-wide NOx emissions in pounds for the rolling 12-month period. The facility-wide NOx emissions shall be calculated by summing the NOx emissions from the previous 12 months from every permitted unit at this facility. [District Rule 2201]
20. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1059-25-0

EXPIRATION DATE: 04/30/2023

EQUIPMENT DESCRIPTION:

1,502 BHP (INTERMITTENT) CATERPILLAR MODEL C32 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. 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]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. Combined annual NO_x emissions from units -3, -4, -5, -21, -22, -23, and -25 shall not exceed 7,232 lb-NO_x/year. [District Rule 2201]
8. Emissions from this IC engine shall not exceed any of the following limits: 3.83 g-NO_x/bhp-hr, 1.19 g-CO/bhp-hr, or 0.20 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
9. Emissions from this IC engine shall not exceed 0.10 g-PM₁₀/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
10. 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]
11. 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]
12. 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 and 17 CCR 93115]
13. 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 and 17 CCR 93115]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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. 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]
16. The permittee shall maintain records of the combined annual NOx emissions of units -3, -4, -5, -21, -22, -23, and -25. [District Rule 2201]
17. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
18. On a monthly basis, the permittee shall calculate and record the monthly NOx emissions from this unit. [District Rule 2201]
19. On a monthly basis, the permittee shall calculate and record the facility-wide NOx emissions in pounds for the rolling 12-month period. The facility-wide NOx emissions shall be calculated by summing the NOx emissions from the previous 12 months from every permitted unit at this facility. [District Rule 2201]
20. 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]

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

APPENDIX C
EPA Certified Emission Factors and Manufacturer's Data Sheet

Cat® 3516C

Diesel Generator Sets



Image shown may not reflect actual configuration

Bore – mm (in)	170 (6.69)
Stroke – mm (in)	190 (7.48)
Displacement – L (in ³)	69 (4210.64)
Compression Ratio	14.7:1
Aspiration	TA
Fuel System	EUI
Governor Type	ADEM™ A3

Standby 60 Hz ekW (kVA)	Mission Critical 60 Hz ekW (kVA)	Prime 60 Hz ekW (kVA)	Continuous 60 Hz ekW (kVA)	Emissions Performance
2000 (2500)	2000 (2500)	1825 (2281)	1650 (2063)	U.S. EPA Stationary Emergency Use Only (Tier 2)

Standard Features

Cat® Diesel Engine

- Meets U.S. EPA Stationary Emergency Use Only (Tier 2) emission standards
- Reliable performance proven in thousands of applications worldwide

Generator Set Package

- Accepts 100% block load in one step and meets other NFPA 110 loading requirements
- Conforms to ISO 8528-5 G3 load acceptance requirements
- Reliability verified through torsional vibration, fuel consumption, oil consumption, transient performance, and endurance testing

Alternators

- Superior motor starting capability minimizes need for oversizing generator
- Designed to match performance and output characteristics of Cat diesel engines

Cooling System

- Cooling systems available to operate in ambient temperatures up to 50°C (122°F)
- Tested to ensure proper generator set cooling

EMCP 4 Control Panels

- User-friendly interface and navigation
- Scalable system to meet a wide range of installation requirements
- Expansion modules and site specific programming for specific customer requirements

Warranty

- 24 months/1000-hour warranty for standby and mission critical ratings
- 12 months/unlimited hour warranty for prime and continuous ratings
- Extended service protection is available to provide extended coverage options

Worldwide Product Support

- Cat dealers have over 1,800 dealer branch stores operating in 200 countries
- Your local Cat dealer provides extensive post-sale support, including maintenance and repair agreements

Financing

- Caterpillar offers an array of financial products to help you succeed through financial service excellence
- Options include loans, finance lease, operating lease, working capital, and revolving line of credit
- Contact your local Cat dealer for availability in your region

Package Performance

Performance		Standby
Frequency		60 Hz
Gen set power rating with fan		2000 ekW
Gen set power rating with fan @ 0.8 power factor		2500 kVA
Emissions		EPA ESE (TIER 2)
Performance number		EM1896-01
Fuel Consumption		
100% load with fan – L/hr (gal/hr)	522.5	(138.0)
75% load with fan – L/hr (gal/hr)	406.8	(107.5)
50% load with fan – L/hr (gal/hr)	293.6	(77.5)
25% load with fan – L/hr (gal/hr)	169.7	(44.8)
Cooling System		
Radiator air flow restriction (system) – kPa (in. water)	0.12	(0.48)
Radiator air flow – m ³ /min (cfm)	2480.0	(87580)
Engine coolant capacity – L (gal)	233.2	(61.6)
Radiator coolant capacity – L (gal)	238.5	(63.0)
Total coolant capacity – L (gal)	471.7	(124.6)
Inlet Air		
Combustion air inlet flow rate – m ³ /min (cfm)	185.5	(6548.9)
Exhaust System		
Exhaust stack gas temperature – °C (°F)	400.1	(752.1)
Exhaust gas flow rate – m ³ /min (cfm)	433.1	(15292.8)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)
Heat Rejection		
Heat rejection to jacket water – kW (Btu/min)	759	(43150)
Heat rejection to exhaust (total) – kW (Btu/min)	1788	(101696)
Heat rejection to aftercooler – kW (Btu/min)	672	(38240)
Heat rejection to atmosphere from engine – kW (Btu/min)	133	(7564)
Heat rejection from alternator – kW (Btu/min)	96	(5464)

APPENDIX D

BACT Guideline

San Joaquin Valley Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 3.1.1
Last Update: 6/13/2019
Emergency Diesel IC Engine

Pollutant	Achieved in Practice or 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/bhp-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.

APPENDIX E

T-BACT Analysis

1. T-BACT Analysis for PM₁₀ Emissions:

Unit -27-0:

a. Step 1 - Identify all control technologies

BACT Guideline 3.1.1 identifies only the following option:

- *0.15 g/bhp-hr or the Latest EPA Tier Certification level for applicable horsepower range, whichever is more stringent. (ATCM)*

The latest EPA Tier Certification level for an engine of the proposed model year and horsepower rating is Tier 2. To determine the latest applicable Tier level, the following steps were taken:

- Conduct a survey of all the emergency IC engines permitted in the District to determine the latest EPA Tier certification level that has been permitted for the proposed engine size
- Conduct a survey of the major IC engine manufacturers/genset vendors to determine the latest EPA Tier certification level that is readily available for the proposed engine size and use
- Review Title 17 CCR, Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines to determine the latest Tier certification level required in California for the proposed engine size

Survey of Permitted Units:

The proposed emergency IC engine is rated at 2,937 bhp. Based on the latest survey of all permitted emergency IC engines powering electrical generators in the horsepower range applicable to the proposed unit, the District found that a Tier 2 certification level is the highest certification level that has been permitted for an IC engine of the size associated with the proposed project.

Survey of IC Engine Manufacturers/Genset Vendors:

Based on the latest survey of the major IC engine/genset manufacturers and vendors (Cummins, Caterpillar, Kohler, MQ Power, etc.) to determine the availability of Tier 4F certified units in the size range associated with the proposed project that are suitable for stationary emergency standby applications, the District concluded that no Tier 4F certified unit is suitable and available for stationary emergency standby use in the size range appropriate for the proposed project.

Stationary ATCM:

Table 1 of the CARB Stationary Air Toxic Control Measure (ATCM) for stationary emergency standby diesel-fired IC engines requires a Tier 2 certification level for IC engines rated greater than 750 bhp. The ATCM does not require a Tier certification level higher than Tier 2 for engines rated greater than 750 bhp.

Summary:

The proposed emergency IC engine is rated at **2,937 bhp**. The District has not permitted any emergency diesel-fired IC engines rated greater than 750 bhp with a tier certification level higher than Tier 2. Moreover, according to the engine manufacturers and genset vendors contacted, a Tier 2 certification level is the latest available for a **2,937 bhp** emergency standby diesel-fired IC engine powering a generator.

Based on the above analysis, the District finds that a Tier 4F emergency IC engine/generator with a rating of approximately **2,937 bhp** is not readily available.

Consequently, the District considers a Tier 2 certification level to be the latest available Tier certification level for the proposed engine size. Furthermore, a Tier 2 certification level satisfies the stationary ATCM requirement for emergency standby IC engines rated greater than 750 bhp.

Please note the proposed Tier **2** IC engine has a PM emission factor of **0.09 g/hp-hr**. Additionally, the ATCM requires a PM emission standard of 0.15 g/hp-hr for all new emergency standby diesel IC engines.

Therefore, the proposed PM/PM10 emission factor of **0.09 g/hp-hr** meets BACT requirements, and also satisfies the stationary ATCM requirement for new emergency standby diesel IC engines.

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 PM10 is emissions of 0.15 g/hp-hr or less. The applicant is proposing an engine that meets this requirement. Therefore, BACT will be satisfied.

APPENDIX F

HRA Summary

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Andrea Ogden – Permit Services
 From: Georgia Stewart – Technical Services
 Date: October 13, 2020
 Facility Name: St. Agnes Medical Center
 Location: 1303 E Herndon Ave, Fresno
 Application #(s): C-1059-27-0
 Project #: C-1202277

1. Summary

1.1 RMR

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
27-0	N/A ¹	N/A ²	0.00	1.70E-06	Yes	Yes
Project Totals	N/A ¹	N/A ²	0.00	1.70E-06		
Facility Totals	N/A ¹	N/A ²	0.00	1.11E-05 ³		

Notes:

- 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 Hazard Index was not calculated since there is no risk factor or the risk factor is so low that it has been determined to be insignificant for this type of unit.
- 3 Permit Unit 5-2 will be removed upon installation of Unit 27-0.

1.2 AAQA

Pollutant	Air Quality Standard (State/Federal)				
	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	NA		NA		
NO _x	NA				Pass
SO _x	NA	NA		NA	Pass
H ₂ S	NA				
PM10				NA	Pass
PM2.5				NA	Pass
Ozone	NA		NA		

Notes:

1. Results were taken from the attached AAQA Report.
2. The 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.
3. ²The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2) unless otherwise noted.
4. Modeled PM10 concentrations were below the District SIL for non-fugitive sources of 1 µg/m³ for the annual concentration.
5. Modeled PM2.5 concentrations were below the District SIL for non-fugitive sources of 0.2 µg/m³ for the annual concentration.

1.3 Proposed Permit Requirements

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Unit # 27-0

1. The PM10 emissions rate shall not exceed **0.09** g/bhp-hr based on US EPA certification using ISO 8178 test procedure.
2. 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.
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.

T-BACT is required for this unit because of emissions of Diesel Particulate Matter which is a PM10.

2. Project Description

Technical Services received a request on September 21, 2020, to perform an Ambient Air Quality Analysis and a Risk Management Review for the following: Permit Unit 5-2 will be removed upon installation of Unit 27-0.

- Unit 27-0: 2937 BHP (INTERMITTENT) CATERPILLAR MODEL 3516 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

3. RMR Report

3.1 Analysis

The District performed an analysis pursuant to the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015) to determine the possible cancer and non-cancer health impact to the nearest resident or worksite. This policy requires that an assessment be performed on a unit by unit basis, project basis, and on a facility-wide basis. If a preliminary prioritization analysis demonstrates that:

- *A unit's prioritization score is less than the District's significance threshold and;*
- *The project's prioritization score is less than the District's significance threshold and;*
- *The facility's total prioritization score is less than the District's significance threshold*

Then, generally no further analysis is required.

The District's significant prioritization score threshold is defined as being equal to or greater than 1.0. If a preliminary analysis demonstrates that either the unit(s) or the project's or the facility's total prioritization score is greater than the District threshold, a screening or a refined assessment is required.

If a refined assessment is greater than one in a million but less than 20 in one million for carcinogenic impacts (Cancer Risk) and less than 1.0 for the Acute and Chronic hazard indices (Non-Carcinogenic) on a unit by unit basis, project basis and on a facility-wide basis the proposed application is considered less than significant. For unit's that exceed a cancer risk of 1 in one million, Toxic Best Available Control Technology (TBACT) must be implemented.

Toxic emissions for this project were calculated using the following methods:

- *Toxic emissions for this proposed unit were calculated by the processing engineer for Diesel Particulate Matter*

These emissions were input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy, risks from the proposed unit's toxic emissions were prioritized using the procedure in the 2016 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required.

The AERMOD model was used, with the parameters outlined below and meteorological data for 2013-2017 from Fresno (Urban RMR) to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters Unit 27-0			
Source Type	Point	Location Type	Urban
Stack Height (m)	9.14	Closest Receptor (m)	44
Stack Diameter. (m)	0.46	Type of Receptor	Residential
Stack Exit Velocity (m/s)	43.96	Max Hours per Year	50
Stack Exit Temp. (°K)	673.00	Fuel Type	Diesel
PM10 (lb/hr)	0.58	PM10 (lb/yr)¹	29

¹Annual rate based on 50 hours of operation per calendar year.

4. AAQA Report

The District modeled the impact of the proposed project on the National Ambient Air Quality Standard (NAAQS) and/or California Ambient Air Quality Standard (CAAQS) in accordance with District Policy APR-1925 (Policy for District Rule 2201 AAQA Modeling) and EPA's Guideline for Air Quality Modeling (Appendix W of 40 CFR Part 51). The District uses a progressive three level approach to perform AAQAs. The first level (Level 1) uses a very conservative approach. If this analysis indicates a likely exceedance of an AAQS or Significant Impact Level (SIL), the analysis proceeds to the second level (Level 2) which implements a more refined approach. For the 1-hour NO₂ standard, there is also a third level that can be implemented if the Level 2 analysis indicates a likely exceedance of an AAQS or SIL.

The modeling analyses predicts the maximum air quality impacts using the appropriate emissions for each standard's averaging period. Required model inputs for a refined AAQA include background ambient air quality data, land characteristics, meteorological inputs, a receptor grid, and source parameters including emissions. These inputs are described in the sections that follow.

Ambient air concentrations of criteria pollutants are recorded at monitoring stations throughout the San Joaquin Valley. Monitoring stations may not measure all necessary pollutants, so background data may need to be collected from multiple sources. The following stations were used for this evaluation:

Monitoring Stations				
Pollutant	Station Name	County	City	Measurement Year
CO	Fresno-Garland	Fresno	Fresno	2016
NO _x	Fresno-Garland	Fresno	Fresno	2016
SO _x	Fresno-Garland	Fresno	Fresno	2016
PM10	Fresno-Garland	Fresno	Fresno	2016
PM2.5	Fresno-Garland	Fresno	Fresno	2016

Technical Services performed modeling for criteria pollutants CO, NO_x, SO_x, and PM10 with the emission rates below:

Emission Rates (lbs/hour)						
Unit ID	Process	NOx	SOx	CO	PM10	PM2.5
27-0	1	N/A	N/A	N/A	N/A	N/A

* The 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.

Emission Rates (lbs/year)						
Unit ID	Process	NOx	SOx	CO	PM10	PM2.5
27-0	1	1224	2	217	29	29

The AERMOD model was used to determine if emissions from the project would cause or contribute to an exceedance of any state of federal air quality standard. The parameters outlined below and meteorological data for 2016 from Fresno-Garland [Urban AAQA] were used for the analysis:

Point Source Parameters						
Unit ID	Unit Description	Release Height (m)	Temp. (°K)	Exit Velocity (m/sec)	Stack Diameter (m)	Vertical/Horizontal/Capped
27-0	2,937 bhp DICE	9.14	673.00	43.96	0.46	Vertical

5. Conclusion

5.1 RMR

The cumulative acute and chronic indices for this facility, including this project, are below 1.0; and the cumulative cancer risk for this facility, including this project, is less than 20 in a million. However, the cancer risk for one or more units in this project is greater than 1.0 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 requirements 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.

5.2 AAQA

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

6. Attachments

- A. Modeling request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Facility Summary
- D. AAQA Results

APPENDIX G
Quarterly Net Emissions Change (QNEC)

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.

Using the values in Sections VII.C.2 and VII.C.1 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

$$\begin{aligned} \text{PE2}_{\text{quarterly}} &= \text{PE2}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 62 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 62 \text{ lb VOC/qtr} \end{aligned}$$

$$\begin{aligned} \text{PE1}_{\text{quarterly}} &= \text{PE1}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 0 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0 \text{ lb VOC /qtr} \end{aligned}$$

Since all the units in this project are covered by a Specific Limiting Condition for NOx:

NECSLC = PE2SLC - PE1SLC, where:

- NECSLC = Quarterly Net Emissions Change for units covered by the SLC.
- PE2SLC = PE2 for all units covered by the SLC.
- PE1SLC = PE1 for all units covered by the SLC.

Using the emission limit from the existing permit conditions, quarterly PE2 and quarterly PE1 can be calculated as follows:

$$\begin{aligned} \text{PE2}_{\text{quarterly}} &= \text{PE2}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 7,232 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 1,808 \text{ lb NO}_x/\text{qtr} \end{aligned}$$

$$\begin{aligned} \text{PE1}_{\text{quarterly}} &= \text{PE1}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 7,232 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 1,808 \text{ lb NO}_x /\text{qtr} \end{aligned}$$

Quarterly NEC [QNEC] (C-1059-27-0)			
Pollutant	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO _x	1,808	1,808	0
SO _x	0.5	0	0.5
PM ₁₀	7.25	0	7.25
CO	54.25	0	54.25
VOC	15.5	0	15.5

For units -3-3, -4-3, -21-3, -22-3 -23-3 and -25-1 PE1 = PE2 for all units for all pollutants, therefore QNEC = 0 for all units for all pollutants.