

ENGINEERING EVALUATION
1080 Sutter Street LLC.
PLANT NO. 21251
APPLICATION 24365

BACKGROUND

1080 Sutter Street LLC. has applied to obtain an Authority to Construct (AC) and/or a Permit to Operate (PO) for the following equipment:

- S-1 Emergency Standby Diesel Generator, John Deere Engine, Model: 6068HF485, Year 2010, 315 BHP, 2.24 MMBTU/hr**

- S-2 Emergency Standby Diesel Fire Pump, John Deere Engine, Model: 6135HF485A, Year: 2012, 236 BHP, 1.85 MMBTU/hr**

The Emergency Standby Diesel Generator (S-1) and the Emergency Standby Diesel Fire Pump (S-2) are equipped with the best available control technology (BACT) for minimizing the release of air borne criteria pollutants and harmful air toxins due to fuel combustion. The criteria pollutants are nitrogen oxides (NO_x), carbon monoxide (CO), precursor organic compounds (POC) from unburned diesel fuel, sulfur dioxide (SO₂) and particulate matter (PM₁₀). All of these pollutants are briefly discussed on the District's web site at www.baaqmd.gov.

The engines meet the Environmental Protection Agency and California Air Resources Board (EPA/CARB) Tier 3 Off-road standard. The engines will burn commercially available California low sulfur diesel fuel. The sulfur content of the diesel fuel will not exceed 0.0015% by weight. The operation of the engines should not pose any health threat to the surrounding community or the public at large.

The engines are subject to attached condition no. 22850.

EMISSIONS SUMMARY

S-1 and S-2 have been certified by CARB to be cleaner burning engines. Except for SO₂, the emission factors for these engines are from the CARB Certification (CARB Executive Order # U-R-004-0393) and manufacturer's specifications, respectively. The SO₂ emissions were calculated based on the maximum allowable sulfur content (0.0015 wt% S) of the diesel fuel with assumption that all of the sulfur present will be converted to SO₂ during the combustion process. The POC emission factor is assumed to be 5% of the total CARB's certified NO_x and POC (NMHC+NO_x) factor based on District Policy.

Basis for S-1:

315 hp output rating
50 hr/yr operation for testing and maintenance
16.4 gallons/hr max fuel use rate

Basis for S-2:

236 hp output rating
50 hr/yr operation for testing and maintenance
13.5 gallons/hr max fuel use rate

Annual Emissions:

Annual emissions are calculated based on the number of hours per year of operation for testing and maintenance.

Daily Emissions:

Daily emissions are calculated to establish whether a source triggers the requirement for BACT (10 lb/highest day total source emissions for any class of pollutants). 24-hr/day of operation will be assumed since no daily limits are imposed on intermittent and unexpected operations.

S-1 Emergency Standby Diesel Generator

Pollutant	Emission Factor (g/kw-hr)	Emission Factor (g/hp-hr)	Annual Emissions (lb/yr)	Annual Emissions (TPY)	Max. Daily (lb/day)
NOx	3.23	2.41	83.59	0.0418	40.12
POC	0.17	0.13	4.40	0.0022	2.11
CO	0.60	0.45	15.53	0.0078	7.45
PM ₁₀	0.120	0.09	3.11	0.0016	1.49
SO ₂		0.001515	0.17	0.00008	0.08
		*lb SO2/MMBTU			

S-2 Emergency Standby Diesel Fire Pump

Pollutant	Emission Factor (g/kw-hr)	Emission Factor (g/hp-hr)	Annual Emissions (lb/yr)	Annual Emissions (TPY)	Max. Daily (lb/day)
NOx	3.40	2.54	65.92	0.0330	31.64
POC	0.10	0.07	1.94	0.0010	0.93
CO	0.80	0.60	15.51	0.0078	7.45
PM ₁₀	0.11	0.08	2.13	0.0011	1.02
SO ₂		0.001515	0.14	0.00007	0.07
		*lb SO2/MMBTU			

PLANT CUMULATIVE INCREASE**Cumulative increase in criteria pollutant emissions from operation of S-1 & S-2**

Pollutant	Current Emissions (TPY)	Increase with this application (TPY)	Cumulative Emissions (TPY)
NOx	0	0.0748	0.0748
POC	0	0.0032	0.0032
CO	0	0.0156	0.0156
PM ₁₀	0	0.0021	0.0021
SO ₂	0	0.0002	0.0002

TOXIC RISK SCREENING ANALYSIS

This application required a Toxics Risk Screen because the diesel particulate emissions are greater than the toxic trigger level.

Table 4. Annual Toxic Emissions

Toxic Pollutant Emitted	Emission Rate (lb/yr)	Risk Screening Trigger (lb/yr)
S-1 Diesel Generator	3.11	
S-2 Fire Pump Engine	2.13	
PM ₁₀ (Diesel Particulate)	5.24	0.34

S-1 and S-2 meet Best Available Control Technology for toxics (TBACT) since the diesel particulate emissions are less than 0.15 g/bhp-hr. For an engine that meets the TBACT requirement, it must also pass the toxic risk screening level of less than ten in a million. Estimates of residential risk assume exposure to annual average toxic air contaminant concentrations occur 24 hours per day, 350 days per year, for a 70-year lifetime. Risk estimates for offsite workers assume exposure occurs 8 hours per day, 245 days per year, for 40 years. Risk estimates for students assume a higher breathing rate, and exposure is assumed to occur 10 hours per day, 36 weeks per year, for 9 years.

Based on 50 hours per year of operation, S-1 and S-2 passed the Health Risk Screening Analysis (HRSA) conducted on Jul 23rd, 2012 by the District's Toxic Evaluation Section. The proposed operation would result in an increased maximum cancer risk of 8.8 chances in a million and a hazard index of 3.1 E-3 for residences near the facility. For non-residential workers near the facility, the proposed operation would result in an increased maximum cancer risk of 4.3 chances in a million and a hazard index of 3.1 E-3. For the students who attend Redding Elementary School, the increased maximum cancer risk is 2.8 chances in a million and the hazard index is 2.2 E-3. Thus, in accordance with Regulation 2, Rule 5, S-1 and S-2 are in compliance with the TBACT and project risk requirements.

PUBLIC NOTIFICATION

The project is within 1000 feet of a public school and therefore is subject to the public notification requirements of Reg. 2-1-412. A public notice was prepared and posted on the Internet. The public notice was sent to parents and guardians of children enrolled at Redding Elementary School and residential and business neighbors located within 1000 feet of the proposed new source of pollution.

BACT

In accordance with Regulation 2, Rule 2, Section 301, BACT is triggered for any new or modified source with the potential to emit 10 pounds or more per highest day of POC, NPOC, NO_x, CO, SO₂ or PM₁₀.

Based on the emission calculations above, the owner/operator of S-1 and S-2 is subject to BACT for the following pollutant: NO_x.

BACT for S-1 is presented in the current BAAQMD BACT/TBACT Workbook for IC Engine – Compression Ignition: Stationary Emergency, non-Agricultural, non-direct drive fire pump, Document # 96.1.3, Revision 7 dated 12/22/2010.

Source:	IC Engine – Compression Ignition: Stationary Emergency, non- Agricultural, non-direct drive fire pump	Revision:	7
		Document #:	96.1.3
Class:	> 50 BHP Output	Date:	12/22/2010
POLLUTANT	BACT 1. Technologically Feasible/ Cost Effective 2. Achieved in Practice 3. TBACT	TYPICAL TECHNOLOGY	
POC	1. n/s ^c 2. CARB ATCM standard ^a for POC at applicable horsepower rating (see attached Table 1).	1. n/s ^c 2. Any engine certified or verified to achieve the applicable standard. ^a	
NO_x	1. n/s ^c 2. CARB ATCM standard ^a for NO _x at applicable horsepower rating (see attached Table 1).	1. n/s ^c 2. Any engine certified or verified to achieve the applicable standard. ^a	

SO₂	1. n/s ^c 2. Fuel sulfur content not to exceed 0.0015% (wt) or 15 ppm (wt).	1. n/s ^c 2. CARB Diesel Fuel (Ultra Low Sulfur Diesel)
CO	1. n/s ^c 2. CARB ATCM standard ^a for CO at applicable horsepower rating (see attached Table 1).	1. n/s ^c 2. Any engine certified or verified to achieve the applicable standard. a
PM₁₀	1. n/s ^c 2. 0.15 g/bhp-hr 3. 0.15 g/bhp-hr	1. n/s ^c 2. Any engine or technology demonstrated, certified or verified to achieve the applicable standard. 3. Any engine or technology demonstrated, certified or verified to achieve the applicable standard.
NPOC	1. n/s ^c 2. n/s	1. n/s ^c 2. n/s

Reference:

- a. ATCM standard (listed below): Where NMHC + NOx is listed (with no individual standards for NOx or NMHC) as the standard, the portions may be considered 95% NOx and 5% NMHC. For the purposes of determining BACT NMHC = POC. Any engine which has been certified or demonstrated to meet the current year tier standard may be considered compliant with the certified emission standard for that pollutant.
- b. Deleted (no longer applies).
- c. Cost effectiveness analysis must be based on lesser of 50 hr/yr or non-emergency operation as limited by District health risk screen analysis.

BACT 2 Emission Limits based on CARB ATCM

Emissions Standards for Stationary Emergency Standby Diesel-Fueled CI Engines >50 BHP g/Kw-hr (g/bhp-hr)			
Maximum Engine Power	PM	NMHC+NOx	CO
37 < KW < 56 (50 < HP < 75)	0.20 (0.15)	4.7 (3.5)	5.0 (3.7)
56 < KW < 75 (75 < HP < 100)	0.20 (0.15)	4.7 (3.5)	5.0 (3.7)
75 < KW < 130 (100 < HP < 175)	0.20 (0.15)	4.0 (3.0)	5.0 (3.7)
130 < KW < 225 (175 < HP < 300)	0.20 (0.15)	4.0 (3.0)	3.5 (2.6)
225 < KW < 450 (300 < HP < 600)	0.20 (0.15)	4.0 (3.0)	3.5 (2.6)
450 < KW < 560 (600 < HP < 750)	0.20 (0.15)	4.0 (3.0)	3.5 (2.6)
KW > 560 (HP > 750)	0.20 (0.15)	6.4 (4.8)	3.5 (2.6)

BACT(2) requires emission factor for NO_x to be 2.85 g/hp-hr or lower, and BACT(2) requires the emission factor for CO to be 2.6 g/hp-hr or lower. BACT(1) has not been determined. S-1 meets the BACT requirements based on the emission factor provided in the manufacturer's emission specification.

The BACT/TBACT Workbook does not address direct-drive emergency standby fire pump engines. Since CARB Stationary Diesel ATCM requirements are stricter than current BACT determinations and applicable NSPS, it is proposed that BACT for direct-drive emergency standby fire pump engines be compliance with the CARB Stationary Diesel ATCM. S-2 complies with the proposed BACT since it is certified to Tier 3 emission standards.

OFFSETS

Offsets are not required.

NSPS (NEW SOURCE PERFORMANCE STANDARDS)

The S-1 engine has a total displacement of 6.8 liters and has 4 cylinders, so each cylinder has a volume of less than 10 liters. The engine is a 2012 model year engine and is not a fire pump. Section 60.4205(b) requires these engines to comply with the emission standards in Section 60.4202, which refers to 40CFR89.112 and 40CFR89.113 for all pollutants. For engines greater than 175 hp and less than 300 hp, these standards are:

NMHC+NO_x: 3.0 g/hp-hr

CO: 2.6 g/hp-hr

PM: 0.15 g/hp-hr

20% opacity during acceleration mode

15% opacity during lugging mode

50% opacity during peaks in acceleration or lugging mode

According to the manufacturer's emission data, the engine will comply with the standards.

Sections 60.4206 and 60.4211(a) require that the owner/operator operate and maintain the engine according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine. The owner/operator is expected to comply with this requirement.

Section 60.4207(a) requires that by October 1, 2007, the owner/operator must use fuel that complies with 40 CFR 80.510(a). This means that the fuel must have a sulfur content of 500 parts per million (ppm) maximum, a cetane index of 40 or a maximum aromatic content of 35 volume percent. The owner/operator is expected to comply with this requirement because CARB diesel is required to be used in California.

Section 60.4207(b) requires that by October 1, 2010, the owner/operator must use fuel that complies with 40 CFR 80.510(b). This means that the fuel must have a sulfur content of 15 parts per million (ppm) maximum, and the same cetane index or aromatic content as above. The owner/operator is expected to comply with this requirement because CARB diesel is required to be used in California.

Section 60.4209(a) requires a non-resettable hour meter. This requirement is already in the standard permit conditions.

The engine will comply with the requirements of Section 60.4211(c) because it has been certified in accordance with 40 CFR Part 89.

The engine will comply with the requirement in Section 60.4211(e) to run for less than 100 hours per year for maintenance checks and readiness testing, and the prohibition of running for any reason other than

emergency operation, maintenance, and testing because they are limited by permit condition to 50 hours per year for reliability testing and otherwise may only operate for emergencies.

The owner/operator is not required to perform tests in accordance with Section 60.4212 or 60.4213.

Section 60.4214 states that owner/operators do not have to submit an initial notification to EPA for emergency engines.

Because the engine does not have a diesel particulate filter, the owner/operator is not subject to Section 60.4214(c).

The owner/operator is required to comply with certain sections of 40 CFR 60, Subpart A, General Provisions. The owner/operator is expected to comply with this requirement.

40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines applies to stationary fire pump engines that were manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

Table 3 to Subpart IIII of Part 60—Certification of stationary fire pump engines is required for 1) engines greater than 750 hp beginning in 2008, 2) engines between 175 and 750 hp (inclusive) beginning in 2009, 3) engines equal to and greater than 100 hp and less than 175 hp beginning in 2010, and 4) engines less than 100 hp beginning in 2011.

Per §60.4202(d), beginning with the model years in Table 3 to Subpart IIII of Part 60, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in Table 4 to Subpart IIII of Part 60, for all pollutants, for the same model year and NFPA nameplate power. Per §60.4205(c), owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in Table 4 to Subpart IIII of Part 60, for all pollutants.

S-2 is a fire pump engine that has a total displacement of 6.8 liters and has 4 cylinders and therefore is subject to the emission standards in Table 4 to Subpart IIII of Part 60, for all pollutants.

Per §60.4211(b), owner or operator of a CI fire pump engine that is manufactured prior to the model years in Table 3 to Subpart IIII of Part 60 (explained in the paragraph above) must comply with the emission standards specified in §60.4205(c) and demonstrate compliance according to one of the methods specified in paragraphs (1) through (5) below:

- (1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.
- (2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
- (3) Keeping records of engine manufacturer data indicating compliance with the standards.
- (4) Keeping records of control device vendor data indicating compliance with the standards.
- (5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

Per §60.4211(c), The owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to their fire pump engine power rating in Table 3 to Subpart IIII of Part 60 must comply with the emission standards specified in §60.4205(c) and must comply by purchasing an engine certified to the emission standards in §60.4205(c) for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.

This engine is model year 2010 and between 100 and 175 hp. It complies with Tier 3 emission standards and therefore is compliant with NSPS requirements.

Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines

Maximum engine power	Model year(s)	NMHC + NO _x g/kW-hr (g/bhp-hr)	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+	7.5 (5.6)		0.40 (0.30)
8=KW<19 (11=HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	7.5 (5.6)		0.40 (0.30)
19=KW<37 (25=HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+	7.5 (5.6)		0.30 (0.22)
37=KW<56 (50=HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ ¹	4.7 (3.5)		0.40 (0.30)
56=KW<75 (75=HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ ¹	4.7 (3.5)		0.40 (0.30)
75=KW<130 (100=HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+ ²	4.0 (3.0)		0.30 (0.22)
130=KW<225 (175=HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ ³	4.0 (3.0)		0.20 (0.15)
225=KW<450 (300=HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ ³	4.0 (3.0)		0.20 (0.15)
450=KW=560 (600=HP=750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	6.4 (4.8)		0.20 (0.15)

¹For model years 2011–2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

²For model years 2010–2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

³In model years 2009–2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

NESHAP (NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS)

S-1 is not subject to the emission or operating limitations in 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, because it is an emergency stationary reciprocating internal combustion engine (40 CFR 63.6600(c)).

CARB STATIONARY DIESEL ENGINE ATCM

The State Office of Administrative Law approved the Airborne Toxic Control Measure (ATCM) on November 8, 2004. State law requires the local Air Districts to implement and enforce the requirements of the ATCM. Effective January 1, 2005, there is a prohibition on the operation of new diesel emergency standby engines greater than 50 bhp unless the following operating requirements and emission standards are met:

The CARB Stationary Diesel ATCM Section 93115.6(a)(4) requires new direct-drive emergency standby fire pump engines to meet Tier 2 off-road emission standards until 3 years after Tier 3 standards are applicable to off-road engines. Tier 3 standards are applicable for fire pump engines until 3 years after Tier 4 standards are applicable to off-road engines.

“Stationary Diesel Engine ATCM” section 93115, title 17, CA Code of Regulations.

Diesel PM – General Requirements

1. Meet 0.15 g/bhp-hr PM standard
2. Operate 50 hours per year, or less, for maintenance and testing (except emergency use and emissions testing)

or

1. Meet 0.01 g/bhp-hr PM standard
2. Operate up to 100 hours per year for maintenance and testing (except emergency use and emissions testing), upon approval by the District.

HC,NOx, NMHC+NOx, CO

1. Meet standards for off-road engines of the same model year and horsepower rating as specified in the OFF-Road Compression Ignition Engine Standards; or if no standards have been established
2. Meet the Tier 3 standards for an off-road engine for the same maximum rated power.

The emergency standby diesel engines (S-1 and S-2) are in compliance with the above ATCM requirements. The diesel engine will operate for no more than 50 hours per year for maintenance and reliability testing. The engine is subject to the Tier 3 off-road CI engine standards for PM₁₀, HC, NOx, NMHC+NOx and CO. As shown in the Table 6, the engine meets these requirements.

ATCM Tier 3 Compliance

	CARB Certification for S-2 g/bhp-hr	ATCM Tier 3 g/bhp-hr
NMHC+NOx	3.10	3.50
NOx	N/A	N/A
NMHC (POC)	N/A	N/A
CO	1.27	3.70
PM	0.12	0.30

ATCM Tier 3 Compliance for S-2 Fire Pump Engine

	CARB Certification for S-1 g/bhp-hr	ATCM Tier 3 g/bhp-hr
NMHC+NOx	2.84	3.00
NOx	N/A	N/A
NMHC (POC)	N/A	N/A
CO	0.67	3.70
PM	0.10	0.22

STATEMENT OF COMPLIANCE

S-1 and S-2 will be operated as emergency standby engines and therefore are not subject to the emission rate limits in Regulation 9, Rule 8 (*NOx and CO from Stationary Internal Combustion Engines*). S-1 and S-2 are exempt from the requirements of Sections 9-8-301 through 305, 501 and 503 per Regulation 9-8-110.5 (*Emergency Standby Engines*). S-1 and S-2 are subject to and expected to comply with 9-8-330 (*Emergency Standby Engines, Hours of Operation*) since non-emergency hours of operation will be limited in the permit conditions to 50 hours per year.

S-1 and S-2 are also subject to and expected to comply with monitoring and record keeping requirements of Regulation 9-8-530 and the SO₂ limitations of 9-1-301 (*Ground-level Concentration*) and 9-1-304 (0.5% by weight in fuel). Regulation 9-8-530 requirements are incorporated into the proposed permit conditions. Compliance with Regulation 9, Rule 1 is very likely since diesel fuel with a 0.0015% by weight sulfur is mandated for use in California.

Like all combustion sources, S-1 and S-2 is subject to Regulation 6, Rule 1 (*Particulate Matter*). Regulation 6-1-303.1 limits opacity from internal combustion engines to Ringelmann 2. This engine is not expected to produce visible emissions or fallout in violation of this regulation and will be assumed to be in compliance with Regulation 6-1.

This application is considered to be ministerial under the District's Regulation 2-1-311 and therefore is not subject to CEQA review. The engineering review for this project requires only the application of standard permit conditions and standard emission factors in accordance with Permit Handbook Chapter 2.3.

This facility is greater than 1,000 feet from the nearest school and therefore is not subject to the public notification requirements of Regulation 2-1-412.

PSD is not triggered.

PERMIT CONDITIONS

COND# 22850 -----

1. The owner/operator shall not exceed 50 hours per year per engine for reliability-related testing.
[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]
2. The owner/operator shall operate each emergency standby engine only for the following purposes:

to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, State or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating while mitigating emergency conditions or while emission testing to show compliance with District, State or Federal emission limits is not limited.

[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]

3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained.

[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]

4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 36 months from the date of entry (60 months if the facility has been issued a Title V Major Facility Review Permit or a Synthetic Minor Operating Permit). Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.
 - a. Hours of operation for reliability-related activities (maintenance and testing).
 - b. Hours of operation for emission testing to show compliance with emission limits.
 - c. Hours of operation (emergency).
 - d. For each emergency, the nature of the emergency condition.
 - e. Fuel usage for each engine(s).

[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]

5. At School and Near-School Operation:
If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply:

The owner/operator shall not operate each stationary emergency standby diesel-fueled

engine for non-emergency use, including maintenance and testing, during the following periods:

- a. Whenever there is a school sponsored activity (if the engine is located on school grounds)
- b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session.

"School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in a private home(s). "School" or "School Grounds" includes any building or structure, athletic field, or other areas of school property but does not include unimproved school property.

[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]

RECOMMENDATION

Issue an Authority to Construct to 1080 Sutter Street LLC. for the following equipment:

- S-1 Emergency Standby Diesel Generator, John Deere Engine, Model: 6068HF485, Year 2010, 315 BHP, 2.24 MMBTU/hr**
- S-2 Emergency Standby Diesel Fire Pump, John Deere Engine, Model: 6135HF485A, Year: 2012, 236 BHP, 1.85 MMBTU/hr**

By: _____ Date: _____
Faye Bruno
Air Quality Engineer II