

ENGINEERING EVALUATION

Second Harvest Food Bank

Application: 23048

Plant: 20616

750 Curtner Avenue, San Jose, CA 95125

BACKGROUND

Second Harvest Food Bank has applied to obtain an Authority to Construct (AC) for the following equipments:

**S-1 Existing Emergency Standby Diesel Generator Set,
Cummins, Model 6BT5.9-G2, Model Year 1998
166 BHP, 1.08 MMBTU**

**S-2 Emergency Standby Diesel Generator Set,
Generac, Model 13.3 DTA, Model Year 2000
380 BHP, 2.69 MMBTU**

**A-2 Selective Catalytic Reduction
EF&EE Inc, Compact SCR**

S-1 has been in operation since 1998 and was thus installed before May 17, 2000 when Regulations 1 and 2 were modified to require engines at or greater than 50 HP to require a Permit to Operate. Consequently, S-1 is a "Loss-Of-Exemption" (LOE) source i.e., a source that was previously exempt from permitting per section 1-110.2, which was later deleted on May 17, 2000. S-1 is not subject to the New Source Review Requirements (i.e. NSPS, BACT, cumulative increase, offsets, toxic review, public notification requirements triggered by proximity to a K-12 school), but it is subject to the Airborne Toxic Control Measure (ATCM). The permit conditions will reflect the ATCM requirements.

S-2 is a donated engine to the Second Harvest Food Bank, thus, S-2 has been relocated and should be considered to be a new engine. S-2 is subject to the New Source Review Requirements. S-2 will be equipped with a SCR (Selective Catalytic Reduction) to reduce the NOx emission.

The criteria pollutants are nitrogen oxides (NOx), carbon monoxide (CO), precursor organic compounds (POC) from unburned diesel fuel, sulfur dioxide (SO2) and particulate matter (PM10). POC is also denoted as NMHC (non-methane hydrocarbon). All of these pollutants are briefly discussed on the District's web site at www.baaqmd.gov.

S-2 meets the Environmental Protection Agency and California Air Resources Board (EPA/CARB) Tier 1 Off-road standard. The engines S-1 and S-2 will burn commercially available California low sulfur diesel fuel. The sulfur content of the diesel fuel will not exceed 0.0015% by weight.

EMISSIONS

This engine can only be allowed the maximum of 20 hours per year of non-emergency operation (maintenance and testing) according to the ATCM since emission data was not provided. Therefore, S-1 is allowed to operate 20 hrs/yr.

Annual Average Emissions for S-1

Basis:

166 hp output rating

20 hr/yr operation for testing and maintenance

7.9 gallons/hr max fuel use rate

Since the emission data was not provided, the Ap-42 emission will be used for this application

NOx	14.07 g/bhp-hr
CO:	3.03 g/bhp-hr
THC (~POC):	1.12 g/bhp-hr
PM ₁₀ :	1.0 g/bhp-hr

SO2 emissions are quantified based on the full conversion of 0.0015 wt% (~ 15 ppm) sulfur in the ULS diesel fuel. The SO2 emission factor was derived from EPA AP-42, Table 3.4-1.

Basis for S-2:

- 380 hp output rating
- 50 hr/yr operation for testing and maintenance
- 19.6 gallons/hr max fuel use rate
- NMHC + NOx, CO and PM10 emission factors provided by CARB Certification with Executive Order U-R-17-7
- POC is assumed to be 5% of NMHC + NOx
- NOx is assumed to be 95% of NMHC + NOx
- SO2 emissions are quantified based on the full conversion of 0.0015 wt% (~ 15 ppm) sulfur in the ULS diesel fuel. The SO2 emission factor was derived from EPA AP-42, Table 3.4-1.

A-1 is assumed to be able to reduce NOx from S-2 to be no more than the current Tier limit. The reduction of A-1 will be part of the permit condition.

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.

Table 1 Estimated Emissions for S-1

From CARB/EPA Certified Data Pollutant	Emission Factor (g/hp-hr)	Annual Emissions (lb/yr)	Annual Emissions (TPY)	Max. Daily (lb/day)
NOx	14.07	257.23	0.1286	123.47
POC	1.12	20.48	0.0102	9.83
CO	3.03	55.39	0.0277	26.59
PM10	1.000	18.28	0.0091	8.78
SO2*	0.001515	0.08	0.00004	0.04

Note: * From Table 3.4-1 of AP-42 1b SO2/MMBTU
15ppm ULSD

Table 2 Estimated Emissions for S-2

Pollutant	Emission Factor (g/kw-hr)	Emission Factor (g/hp-hr)	Abated Emission Factor (g/hp-hr)	Annual Emissions (lb/yr)	Annual Emissions (TPY)	Max. Daily (lb/day)
NMHC+NOx	7.65	5.70	3.14			
NOx	7.27	5.40	2.85	119.27	0.0596	57.25
POC	0.38	0.29	0.29	11.94	0.0060	5.73
CO	0.8	0.60	0.60	24.98	0.0125	11.99
PM10	0.188	0.14	0.140	5.87	0.0029	2.82
SO2			0.001515	0.20	0.00010	0.10

*1b SO2/MMBTU

PLANT CUMULATIVE INCREASE

Table 3 summarizes the cumulative increase in criteria pollutant emissions that will result from the operation of S-2. S-1 is not required for plant cumulative increase analysis since S-1 is not considered to be a new or modified source.

Table 3

Pollutant	Current Emissions (since April 5, 1991) (TPY)	Increase with this application (TPY)	Cumulative Emissions (Current + Increase) (TPY)
NOx	0.000	0.060	0.060
POC	0.000	0.006	0.006
CO	0.000	0.013	0.013
PM10	0.000	0.003	0.003
SO2	0.000	0.000	0.000

TOXIC RISK SCREENING ANALYSIS

This application required a Toxics Risk Screen because the diesel particulate emissions are greater than the toxic trigger level. S-1 is not subject to any of the requirements in the District's Regulation 2, Rule 5. A Toxic Risk Screen Analysis was not required for this source since S-1 is neither a new nor modified source.

<u>Toxic Pollutant Emitted</u>	<u>Emission Rate (lb/yr)</u>	<u>Risk Screening Trigger (lb/yr)</u>
PM10 (Diesel Particulate) for S-2	5.87	0.34

S-2 meets 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, the emergency generator passed the Health Risk Screening Analysis (HRSA) conducted on April 29th, 2011 by the District's Toxic Evaluation Section. The source poses no significant toxic risk, since the increased cancer risk to the maximally exposed receptor (Resident) is 3.8 in a million with a hazard index of 0.0013. The increased cancer risk to the workers is 1.8 in a million with a hazard index of 0.0013. The increased cancer risk to students enrolled in the University Preparatory Academy Carter School and My School at Cathedral of Faith is negligible since the engine is not allowed to operate between 7:30 am and 3:30 pm on days when the school is in session. In accordance with the District's Regulation 2, Rule 5, this risk level is considered acceptable, as it has been determined that S-2 meets the current TBACT standards.

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, NOx, CO, SO₂ or PM₁₀.

S-1 is not subject to BACT requirements from Regulation 2-2 because it is not a new or modified source.

BACT is triggered for NOx and CO for S-2 since the maximum daily emissions of NOx and CO exceed 10 lb/day. Please refer to the discussion on "Daily Emissions" in page 1 of this evaluation. BACT for this source 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:	<i>IC Engine – Compression Ignition: Stationary Emergency, non-Agricultural, non-direct drive fire pump</i>	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/sc 2. CARB ATCM standard ^a for POC at applicable horsepower rating and model year.	1. n/s ^c 2. Any engine certified or verified to achieve the applicable standard. ^a
NOx	1. n/s ^c 2. CARB ATCM standard ^a for NOx at applicable horsepower rating and model year.	1. n/s ^c 2. Any engine certified or verified to achieve the applicable standard. ^a
SO ₂	1. n/sc 2. Fuel sulfur content not to exceed 0.0015% (wt) or 15 ppm (wt).	1. n/sc 2. CARB Diesel Fuel (Ultra Low Sulfur Diesel)
CO	1. n/sc 2. CARB ATCM standard ^a for CO at the applicable horsepower rating and model year.	1. n/sc 2. Any engine certified or verified to achieve the applicable standard. ^a
PM ₁₀	1. n/sc 2. 0.15 g/bhp-hr 3. 0.15 g/bhp-hr	1. n/sc 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 2. n/s	1. n/s 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)

For NOx and CO, BACT(2) is the current CARB ATCM Standard, NOx is required to be no more than 2.85g/hp-hr, CO is required to be no more than 2.6g/hp-hr. BACT(1) has not been determined. S-2 meets the BACT requirements based on the CARB Certification with Executive Order U-R-17-7 with the Selective Catalytic Reduction system.

OFFSETS

Offsets must be provided for any new or modified source at a facility that emits more than 10 tons/yr of POC or NOx per Regulation 2-2-302. Table 4 summarizes the increase in criteria pollutant emissions that will result from the operation of S-2. Offsets are not required because S-1 is neither a new nor modified source pursuant to Regulation 2-1 nor 2-2.

Table 4

Pollutant	Current plant emissions (TPY)	Increase in plant emissions associated with this application (TPY)	Cumulative emissions (Current + Increase) (TPY)	Regulation 2-2-302 and 2-2-303 Offset Triggers (TPY)
NOx	0.000	0.0596	0.0596	> 10; < 35
POC	0.000	0.0060	0.0060	> 10; < 35
CO	0.000	0.0125	0.0125	NA
PM10	0.000	0.0029	0.0029	> 1*
SO2	0.000	0.00010	0.00010	> 1*

*Applies to major facilities with a cumulative increase, minus contemporaneous emission reduction credits, in excess of 1 ton/year since April 5, 1991.

It can be seen from Table 4 above that S-2 does not trigger any offsets. Therefore, offsets are not warranted for any emission.

NSPS

S-2 is subject to 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines because it was manufactured after April 1, 2006, as required by Section 60.4200(a)(2)(i).

S-2 has a total displacement of 13.3 liters and has 6 cylinders, so each cylinder has a volume of less than 10 liters. The engine is a 2000 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 300 hp and smaller than 600 hp, these standards are:

NMHC+NOx: 7.8 g/hp-hr

CO: 8.5 g/hp-hr
PM: 0.40 g/hp-hr
20% opacity during acceleration mode
15% opacity during lugging mode
50% opacity during peaks in acceleration or lugging mode

According to CARB Executive Order U-R-17-7, S-2 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.

NESHAP

This engine 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, in-use stationary emergency CI engines greater than 50 bhp and Diesel PM standards greater than 0.40 g/bhp-hr are limited to 20 hours/year for maintenance and testing. (Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection 93115.6 (b)(3)).

S-1 is an emergency standby generator set and can be allowed 20 hours per year of non-emergency operation (maintenance and testing).

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:

“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 1 standards for an off-road engine for the same maximum rated power.

S-2 is in compliance with the above ATCM requirements. These diesel engines will operate for no more than 50 hours per year for maintenance and reliability testing. These engines are subject to the Tier 3 off-road CI engine standards for HC, NOx, NMHC+NOx and CO. As shown in the Table 5, the engines S-1 and S-2 meet these requirements.

Table 5. ATCM Tier 1 Compliance

	CARB Certified Emissions for S-2 Abated by A-1 g/bhp-hr	ATCM Tier 1 g/bhp-hr
NMHC+NOx	N/A	N/A
NOx	5.4	6.9
NMHC (POC)	0.3	1
CO	0.8	8.5
PM	0.14	0.4

STATEMENT OF COMPLIANCE

S-1 and S-2 will be operated as an emergency standby engine 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 Reg. 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 no more than 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 are subject to Regulation 6, Rule 1 ("Particulate Matter"). Regulation 6-1-303.1 limits opacity from internal combustion engines to Ringelmann 2. These engines are 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 within 1,000 feet from the nearest school and therefore is subject to the public notification requirements of Regulation 2-1-412.

Public Notice will be prepared and sent to all residents, business, the students and parents within 1000ft of the following schools:

University Preparatory Academy Charter School and
My School at Cathedral of Faith
2315 Canoas Garden Avenue
San Jose, CA 95125

PSD is not triggered.

PERMIT CONDITIONS

For S-1,
COND# 22820 -----

1. Operating for reliability-related activities is limited to 20 hours per year per engine.
[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(B)(3) or Regulation 2-5]
2. The owner or 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: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3)] or (e)(2)(B)(3)]
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: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(G)(1)]
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: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(I), (or, Regulation 2-6-501)]
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 or 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, playground, athletic field, or other areas of school property but does not include unimproved school property.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(1)] or (e)(2)(B)(2)]

S-2 is subject to Condition # 22850 and Condition # 24956

COND# 22850 -----

1. The owner/operator shall not exceed 50 hours per year per engine for reliability-related testing.
[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3) or (e)(2)(B)(3)]
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: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3) or (e)(2)(B)(3)]
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: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection(e)(4)(G)(1)]
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: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection e)(4)(I), (or, Regulation 2-6-501)]

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, playground, athletic field, or other areas of school property but does not include unimproved school property.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(1)] or (e)(2)(B)(2)]

Condition #24956

- S-2 Emergency Standby Diesel Generator Set,
Generac, Model 13.3 DTA, Model Year 2000
- A-2 Selective Catalytic Reduction
EF&EE Inc, Compact SCR

Application 23048 (Feb 2011)

1. The owner/operator of S-2 shall not operate this source unless the engine is abated by A-2.
(Basis: BACT, Cumulative Increase)
2. Emissions of nitrogen oxides (NOx) from S-2 shall not exceed the following emission concentration:
2.85 g/hp-hr for NOx
(Basis: BACT, Cumulative Increase)
3. In order to demonstrate compliance with Part 2, the owner/operator shall perform a District-approved source test within 30 days of startup on S-2, in accordance with Regulation 9-7-601 or 602. Alternatively, the owner/operator may provide a manufacturer-approved abatement device efficiency that demonstrates compliance with Part 2 prior to start-up of the engine.
If a source test will be performed, the owner/operator shall notify the Manager of the District's Source Test Section at least seven days prior to the test to provide the District staff the option of observing the testing. Within 45 days of test completion, a comprehensive report of the test results shall be submitted to the Manger of the Source Test Section for review and disposition. (Basis: Regulation 9-7-403, Regulation 2-1-403).

This A/C startup Part 3 will be deleted upon issuance of the Permit to Operate.

RECOMMENDATION

Issue an Authority to Construct to **Second Harvest Food Bank** for:

- S-1 Existing Emergency Standby Diesel Generator Set,
Cummins, Model 6BT5.9-G2, Model Year 1998
166 BHP, 1.08 MMBTU**
- S-2 Emergency Standby Diesel Generator Set,
Generac, Model 13.3 DTA, Model Year 2000
380 BHP, 2.69 MMBTU**
- A-2 Selective Catalytic Reduction
EF&EE Inc, Compact SCR**

Yu Zhang Liu
Air Quality Engineering Intern
Engineering Division