

**Draft Engineering Evaluation
Central Contra Costa Sanitary District
Application No. 30693
Plant No. 7243**

BACKGROUND

Central Contra Costa Sanitary District (Moraga Pumping Station) has applied for an Authority to Construct and/or Permit to Operate for the following:

- S8 Emergency Standby Diesel Generator Set**
Make: Cummins, Model: QSK23-G7 NR2, Model Year: 2020
1,220 bhp, 7.26 MMBtu/hr
- abated by**
- A8 Johnson Matthey DPF+ SCR, S66-2+1-SS-EITO-16/16 CRT(+) 4-N-CS-BISO-12/12-LP, Diesel Particulate Filter and Selective Catalytic Reduction**

The source above will be located at 1790 School Street, Moraga, CA 94556.

The Central Contra Costa Sanitary District (CCCSD) operates a series of pumping stations to convey municipal wastewater to CCCSD's Wastewater Treatment Plant (plant #907) in Martinez. CCCSD operates the Moraga Pumping Station (plant #7243) at 1790 School Street in Moraga.

At the Moraga Pumping Station, there are four existing standby diesel engines: S3 is a 1959 1,000 horsepower Waukesha diesel engine that drives an emergency standby pump. S5 is a 1997 125 horsepower Generac emergency standby diesel engine generator. S6 is a 1997 1,020 horsepower Caterpillar diesel engine that drives an emergency standby pump. S7 is a 1997 100 horsepower John Deere portable emergency standby diesel engine generator. Sources 3, 5, and 6 will be decommissioned. Two new electric motors will power the emergency standby pumps. S8 will provide emergency power for the new electric motors and emergency power for the facility.

The original submission of this project included only a diesel particulate filter (DPF) as abatement for S8. However, a selective catalytic reducer was added later so that the engine will comply with Best Available Control Strategy (BACT, BAAQMD Regulation 2, Rule 2, Section 301) by meeting Tier 4 emissions standards that are achieved in practice for large emergency diesel standby generators equal to and greater than 1000 bhp.

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 (PM). All of these pollutants are briefly discussed on the District's web site at www.baaqmd.gov.

S-8 meets the Environmental Protection Agency and California Air Resources Board (EPA/CARB) Tier 2 Off-road standard and will meet the Tier 4 standard with abatement. 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.

EMISSIONS CALCULATIONS

CCCSD has submitted supporting documents for the engines and abatement devices being considered, which include manufacturer specifications and emissions data. The following tables provide a summary of the engine information. Except for CO, the emission factors are equivalent to the BACT limits.

Table 1: Daily and Annual Emissions from Manufacturer Guaranteed Data

Pollutant	Emission Factor ¹ (g/bhp-hr)	Max Daily Emissions (lb/day)	Annual Emissions (lb/yr)	Annual Emissions (tons/yr)
NO _x	0.50	32.2	134.4	0.067
POC	0.14	9.0	37.6	0.019
CO	0.30	19.3	80.6	0.040
PM ₁₀	0.01	0.7	2.7	0.001
PM _{2.5}	0.01	0.7	2.7	0.001
SO ₂	N/A ²	0.4	1.5	0.001

Basis:

- Annual emissions: Reliability-related activity 100 hours for S-8
- Max daily emissions: 24-hour operation
- 1 pound = 454 grams
- ¹Emission factors are based on EPA/CARB Tier 4 standards, with the exception of PM, which has a fully certified emission factor. Manufacturers’ documentation shows that the abated emissions factors will meet this standard.
- ²SO₂ emission factor from AP-42 Table 3.4-1, SO₂ (15 ppm) = 0.00809*0.0015 lb SO₂/bhp-hr

TOXIC RISK SCREENING

The emergency engine will be certified to the Tier 2 standards before abatement and Tier 4 standards after abatement with an SCR and DPF. It will have a PM emission factor of 0.01 g/hp-hr after abatement. Using the PM emission factor for the proposed engine, a 100 hour per year limit for reliability-related activities, and assuming PM is in the form of diesel exhaust PM, the following annual emission rate for diesel exhaust PM was calculated.

S-8

$$\frac{0.01 \text{ g PM}}{\text{hp-hr}} \times 1,220 \text{ hp} \times \frac{\text{lb}}{454 \text{ g}} \times \frac{100 \text{ hr}}{\text{yr}} = 2.7 \text{ lb PM/yr}$$

Because the emergency engine will have an SCR abating emissions, the associated urea injection will result in ammonia slip emissions of 10 ppmvd at 15% O₂ and 10% moisture, per

manufacturer’s specifications. Ammonia emissions from the SCR and diesel exhaust PM are expected to be the only toxic emissions resulting from this project.

Table 2: Ammonia Project Emissions due to SCR for Application # 30693

Source	Heat Input Rating [MMBtu/hr]	Annual Non-Emergency Operating Time [hours/year]	NH ₃ slip concentration [ppm]	NH ₃ Molecular Weight [lb/lb-mol]	NH ₃ slip Emissions [pounds/hr]	NH ₃ slip Emissions [pounds/year]
S-8	7.26	100	10	17.0	0.094	9.4
			Total Project		0.094	9.4
			HRA Trigger		7.1	7,700

The emergency engine exceeds the diesel exhaust PM chronic trigger level of Table 2-5-1 *“Toxic Air Contaminant Trigger Levels”* of Regulation 2-5, which is a level equivalent to 0.26 lb/yr. The overall project emissions of diesel exhaust PM was calculated to be 2.7 lb/yr. Pursuant to Regulation 2-5-110, a project that exceeds an acute or chronic trigger level of a toxic air contaminant (TAC) is subject to the requirements of this rule.

The HRA estimates residential risk assuming exposure to annual average toxic air contaminant concentrations occurring 350 days per year, for 30 years. Risk estimate for offsite workers assumes an exposure that occurs 8 hours per day, 250 days per year, for 25 years.

Results from this HRA indicate that the maximum project cancer risk is estimated at 0.23 in a million, the maximum project chronic hazard index is estimated at 0.000067, and the acute health index is 0.0015. In accordance with the District’s Regulations 2, Rule 5, Section 301 this source does not trigger TBACT because the estimated source cancer risk and chronic hazard index is less than 1.0 in a million and 0.20, respectively. Since the estimated project cancer risk does not exceed 10 in a million and project hazard indices do not exceed 1.0, this project complies with the District’s Regulation 2-5-302 risk requirements.

This project will reduce the actual emissions of diesel particulate at this facility. The actual emissions of diesel particulate for the new engine will be about 0.027 lb/hr based on the emission factor of 0.01 g/bhp-hr and 1220 hp.

The actual emissions of diesel particulate for the 3 engines that are being replaced (S3, S5, and S6) are about 4.72 lb/hr based on an estimated emission factor of 1.0 g/bhp-hr and 2145 total hp. The estimated emission factor is from EPA AP-42, Compilation of Air Emissions Factors, Table 3.3-1.

PLANT CUMULATIVE EMISSION

The following tables summarize the cumulative increase in BACT pollutant emissions that will result from this application.

Table 3. Cumulative increase in tons/yr

Pollutant	Existing, tpy	New, tpy	Total, tpy
NO _x	0.000	0.067	0.067
CO	0.000	0.040	0.040
PM ₁₀	0.000	0.001	0.001
PM _{2.5}	0.000	0.001	0.001
SO ₂	0.000	0.001	0.001
POC	0.000	0.019	0.019

Emissions attributed to S4 in application 8877 have been removed from the cumulative increase because S4 has been decommissioned and archived.

BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

Pursuant to Regulation 2-2-301, BACT is required for a new source with emission increases that equal 10.0 lbs or greater of any BACT pollutant. The engines are expected to exceed the BACT threshold for NO_x, POC, and CO if no abatement devices are included in the design.

BACT for this source is presented in the current Bay Area Air Quality Management District (BAAQMD) BACT/TBACT Workbook for IC Engine – Compression Ignition: Stationary Emergency, non-Agricultural, non-direct drive fire pump, Document #96.1.5, Revision 0, dated 12/22/2020. The BACT(2) standards for the following pollutants that exceed 10 lb/day are shown below. The more restrictive BACT(1) standards are not applicable to these engines because they will be limited to operation as an emergency standby engine.

S-8 will satisfy the BACT(2) standard for the BACT pollutants that exceed 10 lb/day:

Pollutant	BACT(2) Standard
POC ¹	0.14 g/bhp-hr
NO _x	0.5 g/bhp-hr
CO	2.6 g/bhp-hr

¹NMHC = POC

OFFSETS

Emission offset requirements for POC and NO_x are set out in Regulation 2, Rule 2, Section 302. POC and NO_x offsets are required for new or modified sources at a facility that emits or will be permitted to emit 10 tons per year or more of that pollutant. Offsets for POC and NO_x are not required for this application.

The offsets requirements for PM₁₀, PM_{2.5}, and SO_x are specified in Regulation 2, Rule 2, Section 303. Per Section 303, PM₁₀, PM_{2.5}, and SO_x emission offsets are required for any new or

modified source that is a major facility for PM₁₀, PM_{2.5}, or SO_x emissions. CCCSD is not a major facility for PM₁₀, PM_{2.5}, and SO_x emissions. Therefore, offsets for PM₁₀, PM_{2.5}, and SO_x are not required for this application.

STATEMENT OF COMPLIANCE

The owner/operator is expected to comply with all applicable requirements. Key requirements are listed below:

CARB Airborne Toxic Control Measure for Stationary Compression Ignition Engines

§93115.2 requires any person who purchases a stationary compression ignition engine to meet the requirements of the ATCM.

As of January 1, 2006, owners and operators of new engines are required to consume CARB diesel fuel in accordance with §93115.5.

Per §93115.6(a)(1), an engine located within 500 feet of school grounds shall not operate for non-emergency use between 7:30 A.M. and 3:30 P.M. on days when school is in session. The source is located within 500 feet of school grounds.

Pursuant to §93115.6(a)(3), a new engine must meet the following requirements as of January 1, 2005.

- ATCM “Table 1 Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines” for same model year and maximum engine power, which is shown below;

Table 4. ATCM “Table 1 Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines”				
Maximum Engine Power	Model Year	PM (g/bhp-hr)	NMHC+NO_x (g/bhp-hr)	CO (g/bhp-hr)
hp > 750 (kW > 560)	2008+	0.15	4.8	2.6

- After December 31, 2008, be certified to the new non-road compression-ignition engine emission standard for all pollutants for 2007 and later model year engines as specified in 40 CFR, Part 60, Subpart III; and,
- Not operate more than 50 hours per year for maintenance and testing purposes, except as provided in §93115.6(a)(3)(A)(2) and §93115.13(f). §93115.6(a)(3)(A)(2) allows Districts to allow operation for 100 hr/yr for maintenance and testing as long the diesel PM emission rate is less than or equal to 0.01 g/bhp-hr. This engine will meet this requirement with the diesel particulate filter. Also, §93115.13(f)(1) allows Districts to demonstrate compliance with the 0.01 g/bhp-hr standard in §93115.6, and therefore allow operation for 100 hr/yr for maintenance and testing, by using a Level 3 Verified Diesel Emission Control Strategy in combination with a certified CI engine that meets the 0.15 g/bhp-hr PM emission standard.

The engine will also meet this requirement with the diesel particulate filter. This regulation does not limit engine operation for emergency use and for emission testing to show compliance with §93115.6(a)(3).

The emergency engine is expected to meet the emission requirements and will be limited, through permit condition, to operate unrestricted only for emergencies and a maximum of 100 hours per year for maintenance and testing purposes. In addition, the permit will include near-school operating provisions that meet the requirements of §93115.6(a)(1).

Pursuant to §93115.10(d) (1) a non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed upon installation. The owner/operator of the emergency engine shall keep monthly records of the following for 36 months, with the prior 24 months readily accessible at the site and the prior 25 to 36 months available to the District within 5 working days from the request. However, Major Facilities are required to maintain records for a minimum of 5 years.

- Emergency use hours of operation;
- Maintenance and testing hours of operation;
- Hours of operation for emission testing to show compliance with §93115.6(a)(3) and §93115.6(b)(3);
- Initial start-up testing hours;
- If applicable, hours of operation to comply with the requirements of NFPA 25;
- Hours of operation for all uses other than those specified in §93115.10(g)(1)(A) through (D);
- If applicable, DRP engine hours of operation; and,
- The fuel used.

**New Source Performance Standards (NSPS)
40 CFR Part 60 Subpart III**

According to §60.4200(a)(1)(i), the emergency engine is subject to the requirements of 40 CFR Part 60 Subpart III, “Standards of Performance of Stationary Compression Ignition Internal Combustion Engines.”

Pursuant to §60.4205(b), owners or operators of 2007 model year and later stationary emergency diesel engine-generator sets with a displacement of less than 30 liters per cylinder must comply with §60.4202. In accordance with §60.4202(a)(2), the emission standards must meet those established in 40 CFR 89.112 and 40 CFR 89.113. Pursuant to 40 CFR 89.112, engines with a rated power greater than 560 kW (750 hp) must meet the following emission standards.

Table 5. Review of Standards for Engines with Less than 30 L per Cylinder Displacement				
Pollutant	NSPS Emission Standard (g/kW-hr)	NSPS Emission Standard (g/hp-hr)	EPA Certified Emission Rate (unabated) (g/kW-hr)	EPA Certified Emission Rate (unabated) (g/hp-hr)
NO _x	6.4	4.8	5.4	4.04
CO	3.5	2.6	0.4	0.30
PM	0.20	0.15	0.09	0.07

The aforementioned analysis demonstrates that the emergency engine will meet the emission standards of 40 CFR 89.112. In addition, the emergency engine is expected to meet the following opacity standards identified in 40 CFR 89.113.

Table 6. 40 CFR 89.113 Opacity Standards	
Mode	Opacity (%)
Acceleration	20
Lugging	15
Peak (During acceleration or lugging modes)	50

§60.4206 and §60.4211(a) require the owner or operator to maintain and operate the emergency engine according to the manufacturer’s written instructions or owner/operator developed procedures approved by the manufacturer for the entire life of the emergency engine. The emergency engine is expected to be maintained and operated in accordance with the requirements of §60.4206 and §60.4211(a).

§60.4207(b) requires diesel fuel consumed after October 1, 2010 to meet the requirements of 40 CFR 80.510(b), which is a maximum sulfur content of 15 parts per million (ppm). The fuel consumed is expected to meet this requirement.

§60.4209(a) requires the installation of a non-resettable hour meter. This will be included as a permit requirement.

The emergency engine is certified to the requirements of 40 CFR Part 89 and is expected to comply with §60.4211(c).

Per §60.4211(f), the emergency engine will be allowed to operate unrestricted during emergencies. In addition, the emergency engine will be limited to less than 100 hours per calendar year for maintenance and testing. However, the requirements of the CARB ATCM may further limit the maintenance and testing hours.

**National Emissions Standards for Hazardous Air Pollutants (NESHAP)
40 CFR Part 63 Subpart ZZZZ – Emergency Engine (S-8)**

Pursuant to §63.6585, engines located at an area source are subject to the requirements of 40 CFR Part 63 Subpart ZZZZ, “National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.”

However, according to §63.6590(a)(1)(iii) & §63.6590(c)(1), diesel engines that commenced construction on June 12, 2006 or later and that operate at a facility that emits or has the potential to emit any single hazardous air pollutant (HAP) at a rate of less than 10 tons per year or any combination of HAPs at a rate of less than 25 tons per year, comply with the standard by complying with 40 CFR Part 60 Subpart III, “Standards of Performance of Stationary Compression Ignition Internal Combustion Engines.” The emergency engine is expected to meet the requirements of this subpart by meeting the standards of 40 CFR Part 60 Subpart III, “Standards of Performance of Stationary Compression Ignition Internal Combustion Engines.”

District Rules

Regulation 1

The engine is subject to and expected to be in compliance with the requirements of Regulation 1-301 (Public Nuisance), which states that no person shall emit such quantities of air contaminants or other material which cause significant nuisance to the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause injury or damage to business or property.

Regulation 6, Rule 1

Pursuant to Regulation 6-1-303 a person shall not emit, from any source, for a period or periods aggregating more than three minutes in any hour, a visible emission that is as dark or darker than No. 2 on the Ringelmann Chart, or of such opacity as to obscure an observer’s view to an equivalent or greater degree, nor shall said emission, as perceived by an opacity sensing device in good working order, where such device is required by District Regulations, be equal to or greater than 40% opacity. The emergency engine is expected to meet the requirements of Regulation 6-1-303.

Regulation 9, Rule 1

The engine is subject to the SO₂ limitations of Regulation 9-1-301 (Limitations on Ground Level Concentrations of Sulfur Dioxide), Regulation 9-1-302 (Limitations Sulfur Dioxide Emissions) and 9-1-304 (Burning of Solid and Liquid Sulfur Dioxide Fuel).

Pursuant to Regulation 9-1-301, the ground level concentrations of SO₂ shall not exceed 0.5 ppm continuously for 3 consecutive minutes or 0.25 ppm averaged over 60 consecutive minutes, or 0.05 ppm averaged over 24 hours. Pursuant to Regulation 9-1-302, a person shall not emit from any source, a gas stream containing SO₂ in excess of 300 ppm (dry). Lastly, pursuant to Regulation 9-1-304, a person shall not burn any liquid fuel having a sulfur content in excess of 0.5% by weight. Compliance with Regulation 9-1 is expected due to the use of CARB low sulfur diesel fuel with a sulfur content of 0.0015% by weight.

Regulation 9, Rule 8

This rule limits the emissions of NO_x and CO from stationary internal combustion engines with an output rated by the manufacturer at more than 50 brake horsepower. The engine is intended to operate at a specific site for more than one year and will be attached to a foundation at the site. The requirements of this rule apply. In addition, the engine will be used for emergency use and is defined as an emergency standby engine pursuant to Regulation 9-8-230.

According to Regulation 9-8-110.5, emergency standby engines are exempt from the requirements of Regulations 9-8-301 through 305, 9-8-501, and 9-8-503. Emergency standby engines are subject to the requirements of Regulation 9-8-330. Pursuant to Regulation 9-8-330, the engine would be allowed to operate 50 hours per calendar year for reliability-related activities. However, Regulation 9-8-331 allows the engine to operate 100 hours per calendar year for reliability-related activities because S8 will operate as an essential public service, providing standby power to the Moraga Pumping Station, which conveys wastewater to the CCCSD POTW. The requirements of the CARB ATCM are equivalent to the allowed annual reliability-related activity hours of this rule.

In accordance with Regulation 9-8-530, the engines shall be equipped with a non-resettable totalizing meter that measures hours of operation or fuel usage. Monthly records for the following shall be kept for at least 2 years and be made available to District staff upon request.

- Total hours of operation;
- Emergency hours of operation; and,
- The nature of the emergency condition for each emergency.

The engine is expected to meet the aforementioned requirements.

California Environmental Quality Act (CEQA)

Pursuant to Regulation 2-1-311, an application for a proposed new or modified source will be classified as ministerial and will accordingly be exempt from the CEQA requirement of Regulation 2-1-310 if the District's engineering evaluation and basis for approval or denial of the permit application for the project is limited to the criteria set forth in Regulation 2-1-428 and to the specific procedures, fixed standards, and objective measurements set forth in the District's Permit Handbook and BACT/TBACT Workbook. The evaluation was performed in accordance with the criteria set forth in Chapter 2.3.1 of the Permit Handbook and is considered to be ministerial concerning air quality impacts.

Also, at its November 7, 2019 meeting, the Central San (CCCSD) Board of Directors independently found that this project is exempt from CEQA under Central San's CEQA Guidelines Section 15301, since it involves repairs, maintenance, and minor alterations to an existing sewage facility with no increase in capacity; and Section 15302, since it involves replacement of existing public facilities at the same location and with the same purpose. Any capacity increases are for non-growth inducing, wet weather purposes.

Prevention of Significant Deterioration (PSD)

This application is not part of a PSD project as defined in Regulation 2-2.

California Health & Safety Code §42301.6 and Regulation 2-1-412

Pursuant to California Health & Safety Code §42301.6(a), prior to approving an application for a permit to construct or modification of a source, which is located within 1,000 feet from the outer boundary of a school site, the District shall prepare a public notice as detailed in §42301.6. §42301.9(a) defines a “school” as any public or private school used for the purposes of the education of more than 12 children in kindergarten or any grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes.

Using the GreatSchools.org website and searching with Google Maps, it has been determined that the source will be located within 1,000 feet of the outer boundary of a K-12 school site: The Saklan School, located at 1678 School Street, Moraga, CA 94556. Therefore, the requirements of the California Health & Safety Code §42301.6 and Regulation 2-1-412 apply.

CONDITIONS

Permit Condition 27441 for S8

1. The owner/operator of S8 (Cummins Model: QSK23-G7 NR2, Model Year: 2020, 1220 bhp emergency standby diesel engine) shall abate the engine at all times of operation by a properly installed, maintained, and operated A-8 (consisting of a Diesel Particulate Filter and Selective Catalytic Reduction System). [Basis: Cumulative Increase, Title 17 CCR Section 93115.7(a)(3), 40 CFR 1039.101, BACT]
2. The owner/operator of S8 shall install a backpressure monitor for the diesel particulate filter associated with A8 abating the engine. [Basis: Title 17 CCR Section 93115, ATCM for Stationary CI Engines, CARB Executive Order DE-08-009-10, BAAQMD Regulation 1-523]
3. The owner/operator shall equip S8 with either:
 - a. A dedicated non-resettable totalizing meter that measures hours of operation for the engine (with a minimum display capability of 9,999 hours); or
 - b. A dedicated non-resettable fuel usage meter, the maximum hourly fuel rate shall be used to convert fuel usage to hours of operation.[Title 17 CCR Section 93115, ATCM for Stationary CI Engines, Cumulative Increase]
4. The owner/operator shall comply with requirements in CARB Executive Order DE-08-009-10 for S8. When the backpressure reaches 28.27 inches of water column, the owner/operator will regenerate the DPF. Under no circumstances will the owner/operator allow the DPF to exceed 40.8 inches of water column. [Basis: Cumulative Increase, 2-1-320, CARB Executive Order DE-08-009-10]
5. The owner/operators shall conduct an initial District-approved source test at the engine within 60 days of starting up S8 and once every three years thereafter using the ISO 8178 D2 5-mode test cycle, and/or District approved source test methods to demonstrate compliance with the following emission limits:

NOx: 0.50 g/bhp-hour

POC: 0.14 g/bhp-hour

The owner/operator shall submit the results of the source test to the District within 60 days from the date of the source test. [Basis: BACT]

6. The owner/operator shall comply with all applicable testing requirements as specified in Volume IV of the District's Manual of Procedures. The owner/operator shall notify the District's Source Test Section, in writing, of the source test protocols and projected test dates required by Part 5 of this permit condition at least 7 days prior to testing. [Basis: Regulation 2-1-403]
7. To determine compliance with the above conditions, the owner/operator of S8 shall maintain the following records in a District-approved log and shall make these records available to District staff upon request. All records shall be retained for at least 36 months from the date of entry. These record-keeping requirements shall not replace the record-keeping requirements contained in any applicable District or state regulations.
 - a. Source Test Notifications
 - b. All source test reports for S8
 - c. Engine serial number and source number for each source test
 - d. The owner/operator shall record any corrective actions taken in response to the exceedance of the manufacturer's specified backpressure limit.

[Basis: Cumulative Increase]

Permit Condition 22852 for S8

1. The owner/operator shall not exceed 100 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

The District has reviewed the material contained in the permit application for the proposed project and has made a preliminary determination that the project is expected to comply with all applicable requirements of District, state, and federal air quality-related regulations. The preliminary recommendation is to issue an Authority to Construct/Permit to Operate for the equipment listed below. However, the proposed source will be located within 1,000 feet of a school, which triggers the public notification requirements of District Regulation 2-1-412. After the comments are received and reviewed, the District will make a final determination on the permit.

I recommend that the District initiate a public notice and consider any comments received prior to taking any final action on issuance of an Authority to Construct/Permit to Operate for the following sources:

**S8 Emergency Standby Diesel Generator Set
Make: Cummins, Model: QSK23-G7 NR2, Model Year: 2020
1,220 bhp, 7.26 MMBtu/hr**

abated by

**A8 Johnson Matthey DPF+ SCR, S66-2+1-SS-EITO-16/16 CRT(+) 4-N-CS-BISO-12/12-
LP, Diesel Particulate Filter and Selective Catalytic Reducer**

By: _____
Ryan Atterbury
Air Quality Engineer

Date: _____