Engineering Evaluation
Chabot Community College
Library and Learning Connection (West Side of Building)
25555 Hesperian Boulevard
Hayward, CA 94545
Plant No. 14924
Application No. 31819

Project Description: Emergency Diesel Engine Generator

BACKGROUND

Chabot Community College is applying for an Authority to Construct (AC) and a Permit to Operate (PO) for the following equipment:

S-6 Emergency Standby Engine Generator Set: Diesel Engine; Make Cummins Inc., Model QSL9-G7 NR3, Model Year 2023, Rated 464 bhp (2.98 MMBtu/hr)

Abated by

A-6 Diesel Catalyzed Particulate Filter: Make Johnson Matthey, Model SDPF-2/3-N-TITO-CS-10-LP, 275kW

The stationary emergency diesel engine-generator set will be located at Chabot College Library & Learning Center, 25555 Hesperian Blvd, Hayward, CA 94545. The engine will provide support to facility operations during emergencies as defined by Regulation 9-8-231. The engine will be able to operate unrestricted during emergency use events. However, the engine's annual maintenance and testing hours will be limited in accordance with the California Air Resources Board (CARB) "*Air Toxic Control Measure for Stationary Compression Ignition Engines"* (ATCM) and District regulation 9-8-330.3.

The applicant has submitted supporting documents, which includes manufacturer specifications. Table 1 provides a summary of the information provided by the applicant.

Table 1. Engine Specifications and Certified Emission Factors for S-6

Engine Manufacturer	Cummins Inc.		
Model	QSL9-G7		
Model Year	2023		
Family Name	NCEXL0540AAB		
Engine Power Rating, hp (kW)	464 (346)		
Fuel Consumption, gal/hr	21.3		
Displacement, L (cu. in.)	8.9 (543)		
Emissions	**Tier 3**		**Abatement**
	g/hp-hr	g/kW-hr	% Reduction
Non-Methane Hydrocarbons (NMHC)	0.15	0.20	70
NO_X	2.85	3.82	0
CO	2.60	3.49	80
PM	0.15	0.20	85

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EMISSION CALCULATIONS

The criteria pollutants are nitrogen oxides (NOx), carbon monoxide (CO), precursor organic compounds (POC) from unburned diesel fuel, sulfur dioxide (SO_2) and particulate matter ($PM_{10}/PM_{2.5}$). These five pollutants are briefly discussed on the Air District's website at www.baaqmd.gov.

S-6 meets the Environmental Protection Agency and California Air Resources Board (EPA/CARB) Tier 3 Off-road standard. The engine will burn commercially available California low sulfur diesel fuel. The sulfur content of the diesel fuel will not exceed 0.0015% by weight.

This evaluation report will discuss compliance of the proposed project with all applicable rules and regulations.

Table 2. New Source (S-6) Potential to Emit Review

Pollutant	Emission Rate (g/bhp-hr)	PTE Daily Operating Hours[1] (hr/day)	PTE Daily Emissions (lb/day)	PTE Annual Operation [2] (hr/yr)	PTE Annual Emissions (lb/yr)	PTE Annual Emissions (ton/yr)
POC [3]	0.05	24	1.105	50	2.302	0.001
NO_X	2.85	24	69.968	50	145.767	0.073
CO	0.52	24	12.766	50	26.596	0.013
PM [4]	0.02	24	0.552	50	1.151	0.001
SO_2	0.0055	24	0.135	50	0.282	0.000

[1] Maximum daily operation is assumed to be 24 hours.
[2] Maximum annual operation is assumed to be 50 hours, per Regulation 9-8-330. Maximum annual operation will only include reliability-related activities as defined in Regulation 9-8-232.
[3] NMHC is assumed to be in the form of POC.
[4] PM is assumed to be in the form of particulate matter with a diameter of less than 10 µm (PM_{10}).
[5] SO_2 emissions are based upon the Permit Handbook. The Permit Handbook suggests the use of EPA AP-42, Table 3.4-1. Assuming a sulfur content of 0.0015% (15 ppm), pursuant to the fuel requirements of CARB, the emission factor will be calculated as follows.

SO2: 8.09E-3 × (% S in the fuel) = 8.09E-3 × (0.0015) × (453.6 g/lb) = 0.0055 g/hp-hr

Cumulative Increase

The District tracks cumulative increase in emission from each facility. Table 3 summarizes the cumulative increase in criteria pollutant emissions that will result from this application assuming S-6 will operate 50 hours/year for reliability-related testing.

Table 3. Facility Cumulative Emission Increase Review

Pollutant	Existing (ton/yr)	New (ton/yr)	Total (ton/yr)
POC	6.573	0.001	6.574
NO_x	6.600	0.073	6.673
CO	6.588	0.013	6.601
$PM_{10}/PM_{2.5}$	0.312	0.001	0.313
SO_2	0.010	0.000	0.010

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GRAIN LOADING RATE

The grain loading rate calculation is required for determining the compliance of this application with BAAQMD Regulation 6, Rule 1 (refer to "Statement of Compliance" section, below).

[0.023 lb PM/hr × 7000 grain/lb] / [60 min/hr × 762 DSCFM] = 0.004 grain/dscf

Assumptions:

- PM Emission: 0.023 lb PM/hr
- 7000 grain/lb standard conversion factor (AP-42 Appendix A, Page A-19)
- Per Form ICE, exhaust flow is 2,108 cfm at 1,007°F dry.
- Actual P = 14.7 psi, Bwo = 0 (fraction of water vapor)

This is equivalent to 762 DSCFM.

DSCFM = ACFM × [(460°R + 70°F) / (460°R + temp)] × (Actual P/14.7 psi) × (1-Bwo)

STATEMENT OF COMPLIANCE

Regulation 2, Rule 1

CEQA (Section 2-1-311): The project is ministerial under the BAAQMD's CEQA 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 emissions factors as specified in the BAAQMD Engineering Division Permit Handbook Chapter 2.3.1 (Stationary Diesel Engines) and therefore is not discretionary as defined by CEQA.

Public Notice, Schools (Section 2-1-412): A new or modified source located within 1,000 feet of the outer boundary of a K-12 school site which results in the increase in emissions of a toxic air contaminant in Table 2-5-1 of *Regulation 2, Rule 5 New Source Review of Toxic Air Contaminants* shall prepare and distribute a public notice in accordance with subsections 412.1 and 412.2 of *Regulation 2, Rule 1 General Requirements.*

This application proposes a new source of TACs which is located within 1,000 feet of the outer boundary of the nearest K-12 school (with more than 12 children enrolled). Therefore, public notification pursuant to Reg. 2-1-412 is triggered. To be completed with the comments from public notice.

Regulation 2 – Permits, Rule 2 – New Source Review

In accordance with the Air District Policy[1], the standard potential to emit for emergency engines is based on 150 hr/yr operation (50 hr/yr non-emergency, plus 100 hr/yr emergency purposes).

The assumption of 100 hours per year of emergency operation is used to determine the applicability of certain District permitting regulations, such as New Source Review and Title V Major Facility Review. The District Policy is not used to determine the quantity of emission offsets required for a project that triggers New Source Review or for PSD. It is also not applicable for purposes of the Toxics New Source Review requirements of District Reg. 2-5 (per Regulation 2-5-111).

[1] BAAQMD Policy: Calculating Potential to Emit for Emergency Backup Power Generators. Approval date June 3, 2019. (Referred to as "District Policy" in this engineering evaluation).

DRAFT

The existing S-5 and the new S-6 are the only two emergency engines for this facility. As seen from Table 4, potential to emit NO_X and POC emissions for S-5 and S-6 based on 150 hr/yr engine operation (50 hr/yr non-emergency plus 100 hr/yr emergency operations) are well below the trigger level of 35 TPY.

Table 4. Facility PTE Emissions Review

Pollutant	Existing, S-5 (ton/yr)	New, S-6 (ton/yr)	Total (ton/yr)
POC	0.009	0.003	0.012
NO_x	0.090	0.219	0.309

Best Available Control Technology (BACT): In accordance with Regulation 2-2-301, 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, SO_2, or PM_{10}.

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 8, dated 12/22/2020. For NOx, CO, POC and PM_{10}, BACT2 is the CARB ATCM standard for the respective pollutant at the applicable horsepower rating. For SO_2, BACT2 is using fuel with sulfur content not to exceed 0.0015%, or 15 ppm. The more restrictive BACT1 standards are not applicable to this engine because it will be limited to operation as an emergency standby engine.

S-6 satisfies the current BACT2 standards for the following pollutants which exceed 10 lb/day in Table 2:

Table 5. Analysis of BACT Requirements

Pollutant	Emission Factor	BACT2 Standard
NO_X	2.85 g/bhp-hr	2.85 g/bhp-hr
CO	0.52 g/bhp-hr	2.60 g/bhp-hr

Offsets Requirements for POC and NO_X: Pursuant to Regulation 2-2-302, offsets must be provided for any new or modified source at a facility that emits or has potential to emit more than 10 tons per year of POC or NOx. If a facility has potential to emit more than 10 tons per year but less than 35 tons per year of POC or NO_X after the new or modified source is constructed, offsets must be provided at a 1:1 ratio for any un-offset cumulative increase in emissions at the facility. These emissions will be provided by the District's Small Facility Bank Account, unless applicant owns offset pursuant to Regulation 2-2-302.1.2. If a facility emits or will be permitted to emit 35 tons per year or more, the facility must provide the offsets at a 1.15 to 1.0 ratio.

Potential to emit POC or NO_X, each, at this facility being below 10 ton/yr, this engine is not subject to the offset requirements of Regulation 2-2-302.

Offset Requirements for $PM_{2.5}$/PM_{10} or SO_2: Pursuant to Regulation 2-2-303, offsets must be provided for any new or modified source with a cumulative increase that exceeds 100 tons per year of $PM_{2.5}$/PM_{10} or SO_2. Since potential to emit $PM_{2.5}$/PM_{10} or SO_2 at this facility are each below 100 ton/yr, this engine is not subject to the offset requirements of Regulation 2-2-303.

NAAQS Protection Requirement (2-2-308): Per Regulation 2-2-308, if a project will result in a significant net increase in emissions of CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, or lead, the applicant must

DRAFT

demonstrate that the emissions will not cause or contribute to any exceedance of the National Ambient Air Quality Standards for these pollutants.

This project will not involve any significant net emissions increases, as defined in Regulation 2-2-227.2.

Publication of Notice and Opportunity for Public Comment (2-2-404): If an application involves a major facility, a PSD project, or an increase in CO, NOx, SO_2, PM_{10}, $PM_{2.5}$, VOC, or lead in an amount that is significant as defined in Regulation 2-2-227.2, the BAAQMD must prepare and distribute a public notice and provide an opportunity for public comment in accordance with Regulation 2-2-404 (Publication of Notice and Opportunity for Public Comment).

This application does not involve a major facility or PSD project, and it will not increase emissions above any of the significance levels defined in Regulation 2-2-227.2.

Regulation 2-Permits, Rule 5-Air Toxic Pollutants (Health Risk Assessment): The proposed engine meets the EPA Tier 3 emission standards with a PM emission factor of 0.15 g/bhp-hr, without abatement. Using the EPA-certified PM emission factor for the engine, a 50 hours per year limit for reliability-related activities, results in an estimated annual particulate matter emission of 1.151 pounds/year which is greater than the Regulation 2, Rule 5 chronic toxic trigger level of 0.26 pounds/year. Tables 6 summarizes TAC emissions for this project.

Table 6. TAC Emissions for the Diesel Engine Generator

Pollutant	Emission Factor (g/bhp-hr)	Hourly Emission (lb/hr)	Acute Toxic Trigger Level (lb/hr)	Annual Emissions[1] (lb/yr)	Chronic Toxic Trigger Level (lb/yr)	HRA Required? (Y/N)
Diesel PM	0.02	0.023	N/A	1.151	0.26	Y

[1]Based on 50 hours per year, annual operation for maintenance

Pursuant to Regulation 2-5-110, the application is subject to the provisions of this rule since the increase in diesel exhaust PM emissions from the project is above the trigger level listed in Table 2-5-1 of this regulation. Regulation 2-5 requires that the cumulative impacts from all related projects permitted within the last three years be included in the risk screening analysis. Application #31819 has no related applications.

However, pursuant to the Air District Diesel Engine HRA Streamlining Policy dated June 30, 2022, this application qualifies for HRA Streamlining. Based upon the distance to the nearest receptor, the maximum annual diesel particulate matter emission rate, the location of the engine outside of an overburdened community, and because the engine meets TBACT with a diesel PM emission rate of 0.02 g/bhp-hr, the Air District has determined that this project will result in health impacts of less than 10 in a million-cancer risk and less than 1.0 chronic hazard index based on conservative HRA screening procedures. Therefore, this project will comply with regulation 2, Rule 5, Sections 301 and 302 and a refined HRA is not required for this project.

Regulation 2 – Permits, Rule 6 – Major Facility Review: Regulation 2 Rule 6 implements the operating permit requirements of Title V of the federal Clean Air Act as amended in 1990. The rule applies to major facilities, Phase II acid rain facilities, subject solid waste incinerator facilities and any facility in a source category designated by the Administrator of the EPA in a rulemaking as requiring a Title V permit. The rule also provides a mean by which facilities can

DRAFT

avoid the Title V or other requirements by limiting their potential to emit. A major facility is defined in Section 2-6-212 as one that has the potential to emit 100 tons per year of any regulation air pollutant as defined in Section 2-6-222, or that has the potential to emit 10 tons per year of a single hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants.

The project's potential to emit criteria pollutants based on 150 hours of operation (50 hours and 100 hours for maintenance and emergency run times, respectively) is well below the 100 tons per year per pollutant threshold for a major facility.

In addition, the potential to emit toxics was calculated in accordance with Regulation 2 Rule 5 and presented previously in Table 5; emissions are well below 10 tons per year single HAP threshold for a major facility.

The facility is not a Phase II Acid Rain Facility (2-6-217) or a subject solid waste incinerator facility (Section 2-6-229), or a facility defined in a source category defined by EPA requiring a Title V permit. Therefore, Title V requirements, as implemented by Regulation 2, Rule 6, are not triggered.

Regulation 2 – Particulate Matter, Rule 1 – General Requirements

Ringelmann No. 1 Limitation (6-1-301): Except as provided in Sections 6-1-303, 6-1-304 and 6-1-306, a person shall not emit from any source for a period or periods aggregating more than three minutes in any hour, a visible emission which is as dark or darker than No. 1 on the Ringelmann Chart, or of such opacity as to obscure an observer's view to an equivalent or greater degree.

Source S-6 being an EPA-certified engine, abated by a Diesel Catalyzed Particulate Filter, is expected to emit low amount of PM_{10}, complying with *Regulation 6-1-301* pending a regular inspection.

Opacity Limitation (6-1-302): Except as provided in Sections 6-1-303, 6-1-304 and 6-1-306, a person shall not emit from any source for a period or periods aggregating more than three minutes in any hour an emission equal to or greater than 20% opacity as perceived by an opacity-sensing device, where such device is required by BAAQMD regulations.

Source S-6 being an EPA-certified engine, abated by a Diesel Catalyzed Particulate Filter, is expected to emit low amount of PM_{10}, it is expected to comply with Regulation 6-1-302 pending a regular inspection.

Visible Particles (Section 6-1-305): A person shall not emit particles which are large enough to be visible as individual particles at the emission point or of such size and nature as to be visible individually as incandescent particles.

Source S-6 being an EPA-certified engine, abated by a Diesel Catalyzed Particulate Filter, is expected to emit low amounts of PM_{10}, it is not expected to produce visible emissions or fallout in violation of this regulation and will be assumed to comply with Regulation 6-1-305 pending a regular inspection.

Particulate Weight Limitation (Section 6-1-310): A person shall not emit from any source particulate matter in excess of 0.15 grains/dscf of exhaust gas volume[2].

The PM emission rate from engine S-6, abated, is 0.02 grams/bhp-hr, which results in an outlet grain loading of about 0.004 grains/dscf based on the engine specifications (464 bhp, 2,108 acfm exhaust flow, and 1,007° F emissions stack temperature). Grain loading for the project is much

[2] This number changes with DSCFM, according to Regulation 6-1 (Table 6-1-310.2).

less than the 0.15 grains/dscf limit and comply with Regulation 6-1-310.1. Note that the TSP concentration limits set forth in Regulation 6-1-301.2 do not apply because the PTE for PM per source is below the 1000 kg per year applicability threshold.

Regulation 9 – Inorganic Gaseous Pollutants, Rule 1: Sulfur Dioxide

Source S-6 is subject to the following sections of Regulation 9, Rule 1 and will comply with all sections by burning Ultra Low Sulfur Diesel with a sulfur content of 15 ppm, which results in less than 1 ppmv of SO_2 in the exhaust gas.

Limitations on Ground Level Concentrations (Section 9-1-301): Sulfur Dioxide emissions shall not result in ground level concentrations more than 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.

General Emission Limitation (Section 9-1-302): A gas stream containing Sulfur Dioxide shall not contain sulfur dioxide more than 300 ppm (dry).

Fuel Burning (Section 9-1-304): The sulfur content of liquid fuel burned shall not exceed 0.5% by weight.

Regulation 9 – Inorganic Gaseous Pollutants, Rule 8: NO_X and CO from Stationary Internal Combustion Engines

Exemptions (Section 9-8-110): Section 110.5 exempts emergency standby engines from the requirements of Sections 9-8-301 through 305, 501 and 503.

Emergency Standby Engines, Hours of Operation (Section 9-8-330): S-6 is subject to the requirements of Regulation 9-8-330 which limits reliability related operation of the engines to 50 hours per year per engine

Permit Condition for S-6 will include an operating limit that complies with this standard.

Monitoring and Records (Section 9-8-500): S-6 is subject to the reporting requirements of Sections 502 and 530

Permit Conditions for S-6 will include reporting requirements that meet this standard.

Regulation 10 – Standards of Performance for New Stationary Source

New Sources Performance Standards (NSPS): According to §60.4200(a)(2)(i), the engine is subject to the requirements of 40 CFR Part 60 Subpart IIII, *"Standards of Performance of Stationary Compression Ignition Internal Combustion Engines."*

In accordance with §60.4202(a)(2), the emission standards must meet those established in 40 CFR 89.112 and 40 CFR 89.113.

Using the conversion factor of 1.341 hp per 1 kW, the rated power for the proposed 464 BHP engine in metric units becomes 346 kW.

Pursuant to 40 CFR 89.112, Tier 3 Interim engines with a rated power at or greater than 225 kW or less than 450 kW must meet the emission standards of Table 7.

Table 7. Standards/Review for Engines with Rated Power ≥ 225 kW and < 450 kW

Pollutant	NSPS Emission Standard (g/kW-hr)	Abated Emission Rate[1] (346 kW) (g/kW-hr)
NO_X + NMHC	4.0	3.88
CO	3.5	0.70
PM	0.20	0.03

[1]Tier 3, after abatement by Diesel Catalyzed Particulate Filter.

The aforementioned analysis demonstrates that the engine will meet the emission standards of 40 CFR 89.112. In addition, the engine is expected to meet the opacity standards of Table 8, identified in 40 CFR 89.113.

Table 8. 40 CFR 89.113 Opacity Standards	
Mode	**Opacity (%)**
Acceleration	20
Lugging	15
Peak (During acceleration or lugging modes)	50

§60.4211(a) requires the owner or operator to maintain and operate the engine according to the manufacturer's written instructions or owner/operator developed procedures approved by the manufacturer for the entire life of the engine. The 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 engine is certified to the requirements of 40 CFR Part 89 and is expected to comply with §60.4211(c).

According to §60.4211(f), the engine will be allowed to operate unrestricted during emergencies. In addition, the engine will be limited to less than 50 hours per calendar year for maintenance and testing.

Regulation 11 – National Emission Standards for Hazardous Air Pollutants (NESHAP)

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, must comply instead with 40 CFR Part 60 Subpart IIII, *"Standards of Performance of Stationary Compression Ignition Internal Combustion Engines."* The engine is expected to meet the requirements of this subpart by meeting the standards of 40 CFR Part 60 Subpart IIII, *"Standards of Performance of Stationary Compression Ignition Internal Combustion Engines."*

Other Regulations

The BAAQMD is charged with enforcing the requirements of California's Air Toxic Control Measure for Stationary Compression Ignition Engines *Title 17, California Code of Regulations, Section 93115* for the purpose of reducing diesel particulate matter (PM) and criteria pollutant emissions from stationary diesel-fueled compression ignition (CI) engines.

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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.

According to §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. However, it was determined that there is no school within 500 feet of the proposed engines.

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 in Table 9.

Table 9. Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines[1]

Maximum Engine Power	Model Year	PM (g/kW-hr)	NMHC+NO_X (g/kW-hr)	CO (g/kW-hr)
225 kW ≤ x < 450 kW	2009+	0.20	4.0	3.5

1 https://ww2.arb.ca.gov/sites/default/files/classic//diesel/documents/finalreg2011.pdf

- 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 IIII; and,

- Not operate more than 50 hours per year for maintenance and testing purposes, except as provided in §93115.6(a)(3)(A)(2). This regulation does not limit engine operation for emergency use and for emission testing to show compliance with §93115.6(a)(3).

The engine is expected to meet the aforementioned emission requirements and will be limited, through permit condition, to operate unrestricted only for emergencies and a maximum of 50 hours per year for maintenance and testing purposes.

Pursuant to §93115.10(d) (1) a non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed upon engine installation. The owner/operator of the 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.

- Emergency use hours of operation;
- Maintenance and testing hours of operation;
- Hours of operation for emission testing to show compliance with §933115.6(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);

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- If applicable, DRP engine hours of operation; and,
- The fuel used.

Permit Condition

Permit Condition #22850 for S-6

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.

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"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

I recommend that the District issue an Authority to Construct for the following equipment:

S-6 Emergency Standby Engine Generator Set: Diesel Engine; Make Cummins Inc., Model QSL9-G7 NR3, Model Year 2023, Rated 464 bhp (2.98 MMBtu/hr)

Abated by

A-6 Diesel Catalyzed Particulate Filter: Make Johnson Matthey, Model SDPF-2/3-N-TITO-CS-10-LP, 275kW

Prepared by: Sadegh Sadeghipour, Air Quality Engineer Date: 8/31/2022

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