

PUBLIC NOTICE

Date: May 28, 2025

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To: Parents or guardians of children enrolled at Hollister High School.

Addresses within 1,000 feet of 55 Bundeson Drive, Hollister, CA 95023.

SUBJECT: NOTICE OF INTENT TO ISSUE AN AUTHORITY TO CONSTRUCT PURSUANT TO CALIFORNIA HEALTH & SAFETY CODE §42301.6

Why are you receiving this Notice?	California Health & Safety Code Section 42301.6 requires that prior to approving a permit to construct equipment that emits toxic air emissions and is located within 1,000 feet of a kindergarten through grade 12 school-site, the Monterey Bay Air Resources District (MBARD) shall notify the parents or guardians of children enrolled in a school that is located within one-quarter mile of the proposed new or modified source and to each address within a 1,000 foot radius of the source. This notice is being distributed because MBARD received an application from the City of Hollister requesting to operate an existing emergency internal combustion engine- generator set powering a drinking water pump, at 55 Bundeson Drive, Hollister, CA 95023. The proposed project is located within 1,000 feet of the outer boundary of Hollister High School and will result in emissions of diesel particulate matter, a toxic air contaminant.
Project Description	The City of Hollister is a local government body. The facility is proposing to install a 280 horsepower Tier 3 certified diesel engine to provide emergency power in the event of an electrical outage. The equipment will be limited to less than 50 hours per year for non-emergency use, including maintenance and testing purposes.
Preliminary Evaluation	MBARD has evaluated the permit application for the proposed project and has made a preliminary determination that the project will comply with all applicable air district, state and federal air quality-related regulations, including the health risks resulting from toxic air contaminant emissions. The preliminary recommendation is to issue an Authority to Construct for this project.
Additional Information	If you are interested in getting more information, you may request copies of MBARD's evaluation report by calling MBARD at (831) 647-9411. This information is also accessible on the MBARD website at: <u>https://www.mbard.org/press-releases-and-notices</u>
Public Comment Period	 There is a 30-day period for public response to this proposal. Anyone wishing to comment on the proposed issuance of this permit should submit their comments in writing by June 27, 2025, to the following address: Monterey Bay Air Resources District Attn: Chathura Viswanath 24580 Silver Cloud Court Monterey, CA 93940
	All comments received during this 30-day period will be reviewed and considered by MBARD staff before a final decision is made on this application. MBARD will include written responses to the comments in the permit file.

ENGINEERING EVALUATION AUTHORITY TO CONSTRUCT APPLICATION

Company:	City of Hollister
Mailing Address:	1321 South Street Hollister, CA 95023
Contact Person:	Summer Garcia Utility Supervisor Cell: (831) 636-4370 Email : <u>summer.garcia@hollister.ca.gov</u>
Project Location:	55 Bundeson Drive Hollister, CA 95023
Authority to Construct:	APP-24-00034
Coordinates:	Latitude: 36.83767 ° N Longitude: 121.40003 ° W
SIC No.: NAICS No: SCC No:	9199-04 - City Government-General Offices 999300 - Local Government, excluding Schools and Hospitals 20100102 (Fuel Combustion, Electric Generation, and Oil)
Engineer:	Chathura Viswanath
Evaluation Date :	07/29/2024

I. PROPOSAL DESCRIPTION

EMERGENCY DIESEL INTERNAL COMBUSTION ENGINE-GENERATOR SET:

The City of Hollister has submitted a permit application to operate an emergency engine-generator set installed in April 2024. It consists of a Caterpillar Generator Model D125GC, Caterpillar Diesel Engine model C7.1. The emergency internal combustion engine rated 280 BHP @ 1800-RPM, located at 55 Bundeson Drive, Hollister, CA 95023, will provide emergency back-up power to the drinking water pump for the city of Hollister. The emergency diesel engine is located 764 feet of the outer boundary of Hollister High School.

II. APPLICABLE RULES

- Rule 200: Permits Required
- Rule 201: Sources Not Requiring Permits
- Rule 207: Review of New and Modified Stationary Sources
- Rule 218: Title V Operating Permits
- Rule 221: Federal Prevention of Significant Deterioration
- Rule 222: Federal Minor New Source Review
- Rule 300: MBARD Fees
- Rule 400: Visible Emissions

City of Hollister Engineering Evaluation APP-24-00034 Page 2 of 20

Rule 402: Nuisance

Rule 403: Particulate Matter

Rule 404: Sulfur Compounds & Nitrogen Oxides

Rule 412: Sulfur Content of Fuels

Rule 436: Title V: General Prohibitory Rule

Rule 1000: Toxic Air Contaminants

40 CFR Part 63, Subpart ZZZZ, NESHAP, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR Part 60, Subpart IIII, NSPS, Stationary Compression Ignition Internal Combustion Engines. CA Health & Safety Code, Section 42301.6 – Public Notice.

III. PROCESS DESCRIPTION

Emergency Internal Combustion Engine-Generator Set:

Caterpillar Generator Set, Model D175 GC, With A Rating Of 175 KW, Unit Powered By A 2023 Model Year, Tier 3, Caterpillar Diesel Engine, Model C7.1, Rated At 280 BHP @ 1800 RPM, Family Name PPKXL07.0PW1, Equipped With A Turbocharger And Aftercooler. Serving Potable Water Pump.

IV. DESIGN VIEW AND EMISSIONS CALCULATIONS

Pollutant Species ¹	Emission Factor (g/kW-hr)	Emission Factor (g/Hp-hr)
NO _x	3.880	2.893
VOC	0.120	0.089
СО	1.00	0.746
PM	0.20	0.149
SO_x^2	NA	0.0072

Table 1. Diesel Engine Emission Factors.

Notes:

1. Diesel Engine Emission Factors except SO_x were gathered from Manufacturer's Emission Data Sheet.

2. The SO_x emission factor was calculated assuming that certified diesel fuel was used and that all sulfur in the fuel is combusted into SO_x as SO_2 . Based upon an ultra-low sulfur diesel concentration of 15 ppm the SO_x emission factor is as follows:

1.5E-5 lb/lb-diesel * 7.05 lb.-diesel/gal-diesel * 64 lb-SO₂/lb-mol * lb-mol S/32 lb-S = 2.12E-4 lb-SO₂/gal-diesel

 SO_x Emission Factor (g/hp-hr) = 2.12E-4 lb-SO₂/gal-diesel * Engine Fuel Consumption Rate (gal/hr) * 1/Engine Hp * 454 g/lb

=2.12E-4 lb-SO₂/gal-diesel* 13.5 gal/hr * 1/280 Hp * 454g/lb = 0.0072 g/bhp-hr

City of Hollister Engineering Evaluation APP-24-00034 Page 3 of 20

Table 2.	Emergency	Diesel	Engine	Specific	cations.
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EPA Family Name	PPKXL07.0PW1
Maximum Fuel Consumption Rate (gph) ¹	13.50
Engine Horsepower (hp) ²	280
Exhaust Flowrate (cfm) ¹	1229
Exhaust Temperature (°F) ¹	948
Exhaust Stack Height (ft.) ²	6.31
Exhaust Stack Diameter (in.) ²	5

Notes:

1. The exhaust flowrate and temperature, and fuel consumption referenced the Caterpillar Diesel Generator Set specifications sheet for engine model C7.1, Generator model D175 GC.

2. The engine horsepower, exhaust diameter, and exhaust height were provided by the applicant.

Pollutant	Operating	Power	Emission	Daily Fuel	PTE	Emission	PTE
	Schedule	Rating	Factor	Usage	Emissions	Factor	Emissions ¹
	(hr/day)	(hp)	(g/hp-hr)	(gal/day)	(lb/day)	(lb/gal)	(tons/yr)
NO _x	24	280	2.89	324	42.78	0.1320	0.450
VOC	24	280	0.09	324	1.33	0.0041	0.010
CO	24	280	0.75	324	11.10	0.0343	0.120
PM	24	280	0.150	324	2.22	0.0069	0.020
PM_{10}^{2}	24	280	0.144	324	2.13	0.0066	0.020
$PM_{2.5}^{2}$	24	280	0.141	324	2.08	0.0064	0.020
SO _x	24	280	0.0072	324	0.11	0.0003	0.001
	0.60						

Table 3. Emergency Diesel Engine Potential To Emit (PTE) Emission Calculations

Notes:

1. According to U.S. EPA Memo dated on 9/6/2005, 500 hours per year of max operation was used to calculate the potential annual emissions.

2. PM₁₀ and PM_{2.5} values are calculated from CEIDARS PM speciation profile. PM₁₀ is 96% and PM_{2.5} is 93.7% of PM.

V. RULE COMPLIANCE

The following MBARD rules apply to the operation as specified:

MBARD Rule 200 - Permits Required

The purpose of this Rule is to identify when MBARD permits are issued. The provisions of this Rule shall apply to any person who builds, erects, alters, or replaces any article, machine, equipment or other contrivance which may cause the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants.

Pursuant to Section 3.1, no person shall build, erect, alter, or replace any article, machine, equipment or other contrivance which may cause the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants unless the facility owner or operator has obtained a separate written Authority to Construct for each permit unit from the Air Pollution Control Officer. An Authority to Construct shall remain in effect until the Permit to Operate the equipment for which the application was filed is granted or denied or the application is cancelled. Exceptions to MBARD Rule 200 are identified in MBARD Rule 201.

MBARD Rule 201 - Sources Not Requiring a Permit

MBARD Rule 201, Section 4.14 exempts engines with a power rating of less than 50 BHP from obtaining permits. The diesel engine proposed in this application is rated at 280 BHP. Therefore, this unit is subject to permitting requirements.

MBARD Rule 207 - Review of New of Modified Sources (as adopted on 4/20/2011)

This Rule provides for the review of new and modified stationary air pollution sources to meet requirements for the review of new and modified stationary sources (NSR) and for the Prevention of Significant Deterioration (PSD), under the provisions of the federal Clean Air Act; and requirements for NSR under the provisions of the California Clean Air Act. The intent of this Rule is to ensure that the most stringent requirements of these programs shall be applied.

This Rule shall apply to all new stationary sources and all modifications to existing stationary sources which, after construction or modification, emit or have the potential to emit any affected pollutants. Thus, the proposed project is subject to the requirements of Rule 207.

Federal Best Available Control Technology (BACT) Analysis

Pursuant to Section 4.1.1, an applicant shall apply Best Available Control Technology (BACT) to a new stationary source or modification of an existing source, which has the potential to emit greater than or equal to any one of the affected pollutant levels listed in Table 4.1.1 or a modification of an existing stationary source which has the potential to result in a new emissions increase, as defined in Section 2.37, occurring after October 20, 2010 for $PM_{2.5}$ or after August 19, 1983 for PM_{10} or after July 15, 1976 for any other affected pollutant.

Table 4 shows the emissions from the proposed project, the facility-wide new emissions and the Federal BACT thresholds of Table 4.1.1.

Permit No.	NO _x (lb/day)	VOC (lb/day)	CO (lb/day)	SO _x (lb/day)	PM (lb/day)	PM ₁₀ (lb/day)	PM _{2.5} (lb/day)
APP-24-00034 Emg. Diesel Engine	42.78	1.33	11.10	0.11	2.22	2.13	2.08
Total	42.78	1.33	11.10	0.11	2.22	2.13	2.08
Federal Threshold	150	150	550	150	150	82	54.79

Table 4. Federal New Emission Increase – BACT Determination

Table 4 demonstrates that the facility does not exceed Federal BACT thresholds. Regardless, the proposed Tier-3 engine meets current MBARD BACT standards for emergency engines rated $175 \le HP < 750$, as outlined in MBARD's *Clarification of Permit Requirements for Non-Agricultural Diesel Engines*, January 24, 2023, Table 1, summarized below in Table 5.

City of Hollister Engineering Evaluation APP-24-00034 Page 5 of 20

Engine Rating/Size	PM	NO _x + NMHC	СО
$175 \le \text{HP} < 750$	0.15 g/bhp-hr, or	3.0 g/bhp-hr, or	2.6 g/bhp-hr, or
	0.20 g/kW-hr	4.0 g/kW-hr	3.5 g/kW-hr
APP-24-00034	0.15 g/bhp-hr	2.98 g/bhp-hr	0.75 g/bhp-hr
Emg IC Eng	0.20 g/kW-hr	4.00 g/kW-hr	1.0 g/kW-hr
208 HP			

Table 5	BACT	Guidelines	for	Stationary	Emergency	Enc	vines	At]	Non-M	aior	Sources
	DACI	Guidennes	101	Stationary	Linergency	LIE	smes	Πι		ajor	Sources

California BACT Analysis

Pursuant to Section 5.2, BACT shall be required for any new or modified permit unit with a potential to emit 25 pounds per day or more of VOCs or NO_x .

Pollutant	BACT threshold (lb/day)	Project emissions (lb/day)	BACT Applicability
NO _x	25	42.78	Triggers BACT
VOC	25	1.33	Does Not Trigger BACT

Table 6 demonstrates that the facility exceeds the California BACT thresholds for NO_x.

The proposed Tier-3 engine meets current MBARD BACT standards for emergency engines, as referenced in the Federal BACT discussion above and in Table 5.

Federal & California Stationary Source Offsets Analysis

Pursuant to Rule 207 Section 1.3.3, emergency internal combustion engine emissions are not subject to offset thresholds and the emissions are not included in the facility's net emission increase or accumulation.

In addition, Section 1.3.4 of MBARD Rule 207 states the following "the requirements to conduct Visibility, Soils and Vegetation Analysis, provide offsets, and conduct an Air Quality Increment Analysis of this Rule shall not apply to any Stationary Source that has emissions less than 10 tons/year of each individual criteria pollutants. "As summarized in Table 9, the facility is below the 10 ton/year threshold for each criteria pollutant.

MBARD Rule 207 - Review of New of Modified Sources (as adopted on 2/15/2017)

Note that MBARD has not received approval for the 2/15/2017 version of Rule 207 and is implementing Rule 207 as adopted on 4/20/2011. For informational purposes only, the Rule applicability of Rule 207 as adopted on 2/15/2017 is summarized below.

The purpose of this Rule is to provide for the review of new and modified stationary air pollution sources to meet the New Source Review requirements under the provisions of the California Clean Air Act. This Rule provides mechanisms by which Authorities to Construct may be granted to such sources without interfering with the attainment or maintenance of California ambient air quality standards. Each project subject to New Source Review shall undergo a review under the federal requirements contained within Rule 220 and Rule 221, and a parallel review under the requirements of this Rule and the most stringent applicable provisions shall apply.

City of Hollister Engineering Evaluation APP-24-00034 Page 6 of 20

Rule 207 applies to all new stationary sources and all modifications to existing stationary sources, which after construction or modification, emit or have the potential to emit any affected pollutants. This project is subject to the requirements of this Rule.

Best Available Control Technology (BACT) requirements

Pursuant to Section 4.1.1, BACT shall be required for any new or modified permit unit with a potential to emit 25 pounds per day or more of VOCs or NO_x.

Pollutant	BACT threshold (lb/day)	Project emissions (lb/day)	Compliance
NO _x	25	42.78	Triggers BACT
VOC	25	1.33	Does Not Trigger BACT

Table 7. Permit Unit BACT Determination

As shown in Table 7, the proposed project exceeds the BACT thresholds of Section 4.1.1 for NO_x.

The proposed Tier-3 engine meets current MBARD BACT standards for emergency engines rated greater than or equal to $175 \le \text{HP} < 750$ BHP, as outlined in MBARD's *Clarification of Permit Requirements for Non-Agricultural Diesel Engines*, January 24, 2023, Table 1, summarized above in Table 5.

Pursuant to Section 4.1.2, BACT shall be required for a new or modified stationary source which has the potential to emit greater than or equal to any one of the affected pollutant levels listed in Table 4.1.1.

Permit No.	NO _x (lb/day)	VOC (lb/day)	CO (lb/day)	SO _x (lb/day)	PM (lb/day)	PM ₁₀ (lb/day)	PM _{2.5} (lb/day)
APP-23-00034 Emg. IC Engine	42.78	1.33	11.10	0.11	2.22	2.13	2.08
Total	42.78	1.33	11.10	0.11	2.22	2.13	2.08
BACT Threshold	150	150	550	150	150	82	54.79

Table 8. Facility-Wide BACT Determination

Table 8 shows the facility-wide emissions do not exceed the BACT thresholds of Section 4.1.2 for any criteria pollutant. Regardless, the proposed Tier-3 engine meets current MBARD BACT standards for emergency engines rated greater than or equal to 449 BHP, as referenced in BACT thresholds of Section 4.1.1 discussion and Table 5.

Stationary Source Offsets

Pursuant to Rule 207 Section 1.3.3, emergency internal combustion engine emissions are not subject to offset thresholds and the emissions are not included in the facility's net emission increase or accumulation. In addition, Section 1.3.4 of MBARD Rule 207 states the following "the requirements to conduct Visibility, Soils and Vegetation Analysis, provide offsets, and conduct an Air Quality Increment Analysis of this Rule shall not apply to any Stationary Source that has emissions less than 10 tons/year of each individual criteria pollutants."

City of Hollister Engineering Evaluation APP-24-00034 Page 7 of 20

Rule 207 Parallel Stringency Review

After reviewing the two different versions of Rule 207, the project is in compliance with all the requirements of the Rule as adopted on 4/20/2011 and amended on 2/15/2017.

MBARD Rule 218 - Title V: Federal Operating Permits

Title V is not applicable to the unit since this rule only applies to a stationary source which has the potential to emit (PTE) air contaminants equal to or in excess of the threshold for a major source of regulated air pollutants (100 tons/yr) or a major source of hazardous air pollutants (25 tons/yr combination HAPS or 10 tons/yr single HAP). Table 9 shows facility wide emissions that do not exceed these thresholds.

Application No.	NO _x (ton/yr)	VOC (ton/yr)	CO (ton/yr)	SO _x (ton/yr)	PM (ton/yr)	PM _{2.5} (ton/yr)	PM ₁₀ (ton/yr)
APP-24-00019	0.450	0.010	0.120	0.0010	0.020	0.020	0.020
Total	0.450	0.010	0.120	0.0010	0.020	0.020	0.020

Table 9 – Facility-Wide Annual Emissions

MBARD Rule 221 - Federal Prevention of Significant Deterioration

The proposed project does not meet the definition of a new major stationary source, or a major modification to an existing stationary source. Since the Prevention of Significant Deterioration (PSD) program only applies to new major stationary sources, or major modification to stationary sources, this project is not subject to Rule 221.

MBARD Rule 222 - Minor New Source Review

Compliance with the New Source Review (NSR) provisions of the California Clean Air Act, as defined in MBARD Rule 207, ensures compliance with MBARD Rule 222, Federal Minor NSR.

MBARD Rule 300 - Fees

According to the MBARD Fee Determination Protocol, affirmed by the Board in 2023, fees for an emergency diesel fueled internal combustion engine will be assessed in the fee code category of 202. Table 10 shows the PTE emissions for the diesel fueled internal combustion engine and fee category.

Pollutant	Yearly Emissions ¹ (ton/yr)
NO _x	0.45
VOC	0.01
СО	0.12
SO _x	0.001
PM	0.02
PTE Emissions	0.60
(tons/yr)	0.00
Fee Category	202

Table 10. PTE For Emergency Diesel Fuel Internal Combustion Engine

¹Based on 500 hours per year of max operation for emergency engines, U.S.EPA Memo 9/6/2005.

City of Hollister Engineering Evaluation APP-24-00034 Page 8 of 20

MBARD Rule 400 - Visible Emissions:

The purpose of this Rule is to provide limits for the visible emissions from sources within MBARD. The provisions of this Rule shall apply to all sources of air pollutant emissions in the MBARD.

Notwithstanding the requirements of Section 3.1, emissions of visible smoke from any diesel auxiliary engine or generator used exclusively to operate a drinking water system shall not exceed Ringelmann 2 (or equivalent 40% opacity), when operated under emergency circumstances, or operated not more than 30 minutes each week, or two hours each month, under non-emergency circumstances. {HSC Section 41701.6}

MBARD Rule 402 - Nuisance:

The purpose of this Rule is to provide an explicit prohibition against sources creating public nuisances while operating within the MBARD. The provisions of this Rule shall apply to all sources of air pollutant emissions within the Air MBARD.

According to MBARD Rule 402, Part 3, no person shall discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause, or have a natural tendency to cause, injury or damage to business or property. This requirement will be included as a permit condition.

District Rule 403 – Particulate Matter:

The purpose of this Rule is to provide particulate matter emission limits for sources operating within the district. The provisions of this Rule shall apply to any source discharging particulate matter while operating within the Air District. Per Section 1.3.1, stationary internal combustion engines are exempt from the requirements of this Rule.

District Rule 404 - Sulfur Compounds & Nitrogen Oxides

The purpose of this Rule is to provide limits for the emissions of sulfur compounds, nitrogen oxides and nitrogen dioxide from sources within the district. The provisions of this Rule shall apply to sources of sulfur compounds, nitrogen oxides, and nitrogen dioxide subject to District Rule 200 *Permits Required*.

Section 3.1 prohibits any single emission unit from exceeding the following concentration or amount at the point of discharge to the atmosphere:

- Sulfur compounds, calculated as sulfur dioxide, 0.2% by volume (2,000 ppmv), and

Compliance with the 0.2% by volume (2,000 ppmv) limit for SO_2 for the engine is assured based on the SO_2 emissions of 0.0045 lb/hr. See calculation below:

$$SO_{2}(ppm) = \frac{lbSO_{2}}{hr} \div \left(\frac{DSCFM, ft^{3}}{hr} x \frac{MV_{SO2}, lb}{lbmole} x \frac{lbmole}{385ft^{3}}\right) x 10^{6}$$
$$SO_{2}(ppm) = \frac{0.0072 \ lb}{hr} \div \left(\frac{73740 \ ft^{3}}{hr} x \frac{64 \ lb}{lbmole} x \frac{lbmole}{385ft^{3}}\right) x 10^{6} = 0.59 \ ppm$$

- Nitrogen oxides, calculated as nitrogen dioxide (NO₂), 140 pounds per hour.

As shown in Table 3 the hourly NO_x emission rate for the engine is 1.78 lb/hr which is well below the 140 lb/hr limit.

$$(42.78 \ lb/day) \div (24 \ hr/day) = 1.78 \ lb/hr$$

At an emission rate of 1.78 lb/hr NO_x , the facility can comply with the 140 lb/hr limit. However, per section 1.3.2 any source subject to an emission limit imposed by the BACT requirements of Section 4.1 or 5.2 of District Rule 207 (Review of New or Modified Sources) shall not be subject to Section 3.1 of this Rule for the same pollutant. Therefore, since this unit triggered BACT, for NO_x , it is not subject to section 3.1 of this rule.

MBARD Rule 412 – Sulfur Content of Fuels

According to MBARD Rule 412 Part 3, no liquid fuel shall be burned unless the sulfur content is less than 0.5 percent by weight. Pursuant to MBARD Rule 1010, the diesel-fueled engine must only use CARB diesel fuel. The sulfur content in CARB diesel fuel is limited to 15 ppm (0.0015% by weight) and will ensure compliance with the sulfur content of this Section. The sulfur content of the CARB diesel fuel will meet the requirements of this rule.

MBARD Rule 436 - Title V: General Prohibitory Rule

The purpose of this Rule is to provide federally enforceable potential to emit limitations limiting emissions below the thresholds requiring federal Title V operating permits under Rule 218.

Application No.	NO _x (ton/yr)	VOC (ton/yr)	CO (ton/yr)	SO _x (ton/yr)	PM (ton/yr)	PM _{2.5} (ton/yr)	PM ₁₀ (ton/yr)
APP-24-00034	0.450	0.010	0.120	0.0010	0.020	0.020	0.020
Total	0.450	0.010	0.120	0.0010	0.020	0.020	0.020

Table 11. Facility PTE Emissions (tons per year)

The General Applicability of this Rule shall apply to any stationary source which would, if it did not comply with the limitations set forth in this rule, have the potential to emit air contaminants equal to or in excess of the threshold for a major source of regulated air pollutants or a major source of hazardous air pollutants (HAPs) and which meets one of the following conditions:

Title V is not applicable because this rule only applies to a stationary source which has the potential to emit air contaminants equal to or in excess of:

- 100 tons/year of criteria pollutants, or
- 25 tons/year of combined hazardous air pollutants combination, or
- 10 tons/year for any single HAP.

Table 11 shows that the annual potential emissions are below the applicability thresholds.

Pursuant to Rule 436 Section 1.2 and 3.1 the facility is exempt from Title V permitting process because

it is expected that the actual emissions, will not exceed, in every 12-month period the following:

- 50 tons per year for regulated (criteria) pollutants.
- 5 tons single Hazardous Air Pollutant (HAP) per year
- 12.5 tons per year of any combination of HAPs per year, or
- 50% of any lesser threshold for a single HAP as the EPA may establish.

Table 11 shows that the annual potential emissions are below the applicability thresholds.

Pursuant to Section 1.3.2.1, allows an exemption from Title V Record keeping requirements of Part 4 if actual emissions do not have the potential to exceed in every 12-month period the following limits:

- 5 tons per year for a regulated (criteria) pollutant
- 2 tons single Hazardous Air Pollutant (HAP) per year
- 5 tons per year of any combination of HAPs per year, or
- 20% of any lesser threshold for a single HAP as the EPA may establish.

Table 11 shows the annual potential emissions are below the applicability thresholds. The facility is entitled to the exemption from reporting requirements of Rule 436 Part 4.

Furthermore, the facility is entitled to the exemption from Reporting Requirements of Rule 436 Part 5, pursuant to Section 5.2. Section 5.2 allows an exemption from Title V reporting requirements, if actual emissions, based on annual renewal information sheets, will not exceed in every 12-month period the following quantities:

- 25 tons per year including a regulated air pollutant for which the MBARD has a federal area designation of attainment, unclassified transitional, or moderate nonattainment.
- 15 tons per year for regulated (criteria) pollutants for which the MBARD has federal area designation of serious nonattainment.
- 6.25 tons per year for regulated (criteria) pollutants for which the MBARD has federal area designation of severe nonattainment.
- 2.5 tons per year of a single HAP
- 6.25 tons per year of any combination of HAPs
- 25% of any lesser threshold for a single HAP as the U.S. EPA may establish.

As shown in Table 11, the facility is entitled to the exemption from reporting requirements of Rule 436 Part 5.

Rule 1000 - Toxic Air Contaminants:

This Rule applies to any new or modified stationary sources for which an Authority to Construct or a Permit to Operate is required pursuant to MBARD Regulation II - Permits, and which has the potential to emit into the atmosphere any TAC (Toxic Air Contaminant). Whenever a potential TAC may be subject to more than one MBARD Rule, or to more than one requirement in this rule, the requirement resulting in the least hazard to the public, as determined by the Air Pollution Control Officer, shall apply.

MBARD Rule 1000 Part 3 requires new or modified sources of toxic air contaminants (TAC) and carcinogenic toxic air contaminants (CATC) to meet the following:

• 3.1.1 The acute hazard index for any target organ or organ system due to TAC emissions from the new

City of Hollister Engineering Evaluation APP-24-00034 Page 11 of 20

or modified permit unit shall not exceed 1.0 at any receptor location;

- 3.1.2 The chronic hazard index for any target organ or organ system due to TAC emissions from the new or modified permit unit shall not exceed 1.0 at any receptor location;
- 3.1.3 The cancer risk due to TAC emissions from the new or modified permit unit shall not exceed 10 in one million at any receptor location.

Combustion of diesel fuel results in the emissions of toxic air contaminants (TAC). However, pursuant to Section 1.3 of this Rule, the provisions of this Rule shall not apply to any Source Category that has an existing State Air Toxics Control Measure (ATCM). Since the proposed diesel-powered engine generator set is subject to the ATCM for Stationary Compression Ignition Engines, the project is exempt from Rule 1000.

Nonetheless, due to the toxicity nature of diesel PM, the emergency diesel engine may be subject to the requirements of AB2588, Air Toxic "Hots Spots" Information and Assessment Act of 1987. Section 3.1 allows the use of the current California Air Pollution Control Officers Association Prioritization Guidelines in lieu of a risk assessment. Thus, a prioritization assessment was conducted for informational purposes, using 50 hours per year of operations, not actual annual hours of operation. The nearest receptor is located 8.3 meters (27.23 feet) away from the source. As shown in Table 12, the emergency diesel engine prioritization score for the acute risk is less than 1 and, chronic & cancer health risk are greater than one but less than 10. Therefore, for AB2588 purposes, the engine will be categorized as Intermediate.

Table 12. Prioritization Scores

Acute	0.00
Chronic	2.06
Cancer	7.94

Rule 1010 - Air Toxic Control Measure for Stationary Compression Ignition Engines:

The purpose of this rule is to reduce diesel particulate matter (PM) from stationary diesel-fueled compression ignition (CI) engines and consistent with California Health and Safety Code Section 39666(d) is a replacement rule for 17 California Code of Regulations Section 93115, Airborne Toxic Control Measure for Stationary Compression Ignition Engines.

Except as provided in Section 1.3, this Rule applies to any person who sells a stationary CI engine, offers a stationary CI engine for sale, leases a stationary CI engine, or purchases a stationary CI engine for use, unless such engine is: a portable CI engine, a CI engine used to provide motive power, an auxiliary CI engine used on a marine vessel, or an agricultural wind machine. Per section 1.2.2 the Rule applies to any person who owns or operates a stationary CI engine in the MBARD with a rated brake horsepower greater than 50 (>50 bhp).

Fuel and Fuel Additive Requirements

Pursuant to Section 3.1, no owner or operator of any stationary diesel-fueled CI engine shall add to the engine, or any fuel tank directly attached to the engine any fuel unless the fuel is one of the following:

- CARB Diesel Fuel; or
- An alternative diesel fuel that is:
 - biodiesel;

City of Hollister Engineering Evaluation APP-24-00034 Page 12 of 20

- a biodiesel blend that does not meet the definition of CARB Diesel Fuel.
- a Fischer-Tropsch fuel; or
- an emulsion of water in diesel fuel; or
- Any alternative diesel fuel that is not identified in Subsection 3.1.2 above and meets the requirements of the Verification Procedure; or
- An alternative fuel; or
- CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure; or
- Any combination of the above fuels.

Emergency Standby Diesel-Fueled CI Engines (>50 HP) – Diesel PM Standard

Pursuant to Section 3.2.1.3.1, the emissions from the new stationary emergency standby diesel-fueled engine shall be less than or equal to 0.15 g/bhp-hr; or meet the diesel PM standard, as specified in the Federal Standards of Performance for Stationary Compression Ignition Internal Combustion Engines with the same maximum rated power (40 CFR Part 60, Subpart IIII), in effect on the date of acquisition or submittal, as defined in Section 2.15 whichever is more stringent. The proposed engine is a Tier 3 unit and meets the requirements of this Section.

New Emergency Standby Diesel Engine At-School and Near-School Provisions

Pursuant to Section 3.2.1.1, no owner or operator shall operate a new stationary emergency diesel engine for non-emergency use (including maintenance and testing) with emissions of greater than 0.01 g/bph-hr of diesel PM during the following periods:

- Whenever there is a school sponsored activity, if the engine is located on school grounds, and
- Between 7:30 a.m. and 3:30 p.m. on days when school is in session, if the engine is located within 500 feet of school grounds.

The unit is located 764.26 feet away from the Hollister High school grounds. Hence, the facility is not subject to this requirement.

Emergency Standby Diesel-Fueled CI Engines (>50 HP) – Maintenance & Testing: Hours of Operation

Pursuant to Section 3.2.1.3.1.1.3, the new engines shall not operate more than 50 hours per year for maintenance and testing purposes. This subsection does not limit operation for emergency use and for emission testing to show compliance with Subsection 3.2.1.3. A permit condition will be added to meet this requirement.

Record-keeping Requirements

MBARD Rule 1010 Section 4.1.5 requires a non-resettable hour meter to be installed with a minimum display capacity of 9,999 hours. Furthermore, MBARD Rule 1010 Section 4.1.7 requires the monthly reporting of the following:

- Emergency use hours of operation;
- Maintenance and testing hours of operation;

City of Hollister Engineering Evaluation APP-24-00034 Page 13 of 20

- Hours of operation for emission testing to show compliance with Section 3.2.1
- Initial start-up testing hours; and,
- Fuel used.

Lastly, pursuant to MBARD Rule 1010 Section 4.1.7.2, the owner or operator of the diesel engine must retain records for a minimum of 36 months and maintain on-site records for the prior 24 months. Records from the prior 25 to 36 months must be made available to MBARD staff within 5 working days from the request date.

<u>40 CFR Part 63, Subpart ZZZZ, NESHAP, National Emission Standards for Hazardous Air Pollutants for</u> <u>Stationary Reciprocating Internal Combustion Engines</u>

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. An area source of HAP is defined as a plant site that emits or has the potential to emit any single 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. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

Pursuant to Section §63.6590(a)(2)(iii), an affected source includes new stationary RICEs located at an area source of HAP emissions. This unit is considered a new stationary RICE at an area source of HAP since construction commenced after June 12, 2006.

As an affected source, pursuant to §63.6590(c) & §63.6590(c)(1), any new or reconstructed stationary Rice located at an area source must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart IIII, NSPS for compression ignition engines and no further requirements apply for such engines under this part. Therefore, the facility will comply with NESHAP ZZZZ by complying with NSPS IIII, as outlined in the next section below.

<u>40 CFR Part 60, Subpart IIII, NSPS, Standards of Performance for Stationary Compression Ignition Internal</u> <u>Combustion Engines</u>

Per Section §60.4200 (a)(2)(i) & 60.4200 (a)(3), Subpart IIII applies to owners and operators of stationary CI ICE that commenced construction after July 11, 2005, and manufactured after April 1, 2006, and are not fire pumps. Per Section §60.4205(b), owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202.

For engines with a rated power greater than or equal to 37 KW (50 HP), the Tier 3 emission standards for new nonroad CI engines for the same rated power as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 beginning in model year 2006.

The proposed engine is rated at 175 kW, meets Tier 3 emission standards and complies with the requirements of 40 CFR Part 60, Subpart IIII. Table 13 shows the comparison of Table 3 of Appendix I to Part 1039(c) standards and the proposed engine emissions from manufacturer specifications.

Pollutant	Emission Standards (g/kW-hr)	Engine Emissions (g/kW-hr)	Compliance
$NMHC + NO_x$	4.00	4.00	Yes
СО	3.50	1.00	Yes
PM	0.20	0.20	Yes

Table	13	Standards	for Engine	Rated	130 < kW	< 560 for	Tier 3	starting mo	del vear	2006
Table	15.	Stanuarus	IOI LIIgines	Maicu	$130 \ge KW$	\geq 500 101	1101 5,	starting mo	uci ycai	2000.

As shown in Table 13, the emergency diesel engine meets the emissions requirement of this section.

Compliance Requirements

Section §60.4211(a) requires operating and maintaining the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions and only changing those emission-related settings that the manufacturer permits; and to meet the requirements of 40 CFR part 1068, as applied to the engine subject to the evaluation.

Section §60.4211(c) requires the engine must be installed and configured according to the manufacturer's emission-related specifications. The owner has agreed to install, configure and operate the unit in compliance with §60.4211(a) and (c). Compliance requirements will be included as a permit condition.

Pursuant to Section 60.4211(g), if the owner or operator does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the legal owner or operator must demonstrate compliance according to the provisions of 60.4211(g)(2) as the engine is rated as 280 HP.

NOTE: Such an action described above would constitute a permit modification per the requirements of MBARD Rule 207 - Sections 1.2 & 2.33.1, Rule 1000 - Sections 1.2 & 2.9 and would require a demonstration of compliance with Rule 1010 - Section 3.3. Hence, the requirements and allowances of Section §60.4211(g) cannot be incorporated into the permit at this time.

For informational purposes only, should the facility submit an application for a permit modification to reevaluate the project for the change in method of operation, revisions to the potential to emit, and compliance with Rules 1000 & 1010, and MBARD is able to make the appropriate findings, an ATC could be issued with the following requirements of §60.4211(g) for the respective sized engine listed below:

For engines greater than or equal to 100 HP and less than or equal to 500 HP,

- must keep a maintenance plan and records of conducted maintenance
- must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition,
- must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that

City of Hollister Engineering Evaluation APP-24-00034 Page 15 of 20

is not permitted by the manufacturer.

Should §60.4211(g) need to be taken into consideration at a future date, the initial performance would be required within 180 days (6 months), to align with MBARD's Source Testing Protocol.

Compliance requirements will be included as a permit condition.

Fuel Requirements

Per Section §60.4207, beginning October 1, 2010, owners and operators of stationary CI ICE subject to subpart IIII, with a displacement of less than 30 liters per cylinder that use diesel fuel, must use diesel fuel that meets the requirements of 40 CFR 1090.305 except any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted or as specified in Section §1090.3009 (a). Requirements: the maximum sulfur content of 15ppm and must meet one of the following standards a minimum cetane index of 40 or maximum aromatic content of 35% by volume.

The use of diesel that meets California Air Resources Board (CARB) specification, or the alternative diesel fuel specifications as defined in MBARD Rule 1010 will comply with the fuel requirements of this section.

Recordkeeping Requirements

Per Table 5 to subpart IIII, starting model year 2011, an engine rated $KW \ge 130$ (HP ≥ 175) must comply with the requirements of Section §60.4214(b) as follows:

If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

Recordkeeping requirements will be included as a permit condition.

Health & Safety Code (H&SC) Section 42301.6 – Public Notification Requirements:

Pursuant to Section §42301.6(a), prior to approving an application for a permit to construct or modify a source that emits hazardous air emissions, and that source is located within 1,000 feet from the outer boundary of a school site, the air pollution control officer shall prepare a public notice in which the proposed project or modification for which the application for a permit is made is fully described.

The notice may be prepared whether or not the material is or would be subject to subdivision (a) of Section 25536, if the air pollution control officer determines and the administering agency concurs that hazardous air emissions of the material may result from an air release, as defined by Section 44303. The notice may be combined with any other notice on the project or permit that is required by law.

The district protocol adopted by the board on 11/14/01 specifies the risk thresholds for public notification. If the carcinogenic risk is in excess of 1 in a million, or non-carcinogenic risk is at or above the applicable reference exposure levels, the district will conduct a public notice.

The proposed engine is subject to this evaluation, as it is located within 1,000 feet of the outer boundary of

City of Hollister Engineering Evaluation APP-24-00034 Page 16 of 20

Hollister High School; therefore, the project is subject to the public notification requirements. Figure 1 shows Hollister High School, located within 1000 feet of the engine location.

Figure 1 - Hollister High School stadium and aquatic center, located within 1000 feet of the engine location.



Lakes Environmental AERMOD was used to model the concentrations from the emergency diesel engine generator. The AERMOD concentration files were used in CARB's Air Dispersion Modelling Risk Tool (ADMRT). The adjacent buildings were included in AERMOD's Building downwash, assuming they are single storeyed (all residential) 15 feet high.

Table 14 shows the parameters used to model the emergency diesel engine.

Source ID ¹	1
Source type ²	Point
X Coordinate	642666
Y Coordinate	4078059
Base elevation ³	305.12 ft
Release height	6.31 ft
Emissions rate ⁴	1 g/s
Stack diameter	5 in
Gas exit flow rate	1229 cfm
Gas exit temperature	948 F

Table 14 – Engine rated 280 HP modelling parameters.

City of Hollister Engineering Evaluation APP-24-00034 Page 17 of 20

Met station elevation ⁵ (Watsonville)	48.8
Maximum 1-hr Concentration	2150.48 µg/m ³
Maximum Period Concentration	121.19 μg/m ³

1 Source ID 1 used because AERMOD results will be loaded into CARB's ADMRT tool where source ID will be identified as 1.

2 Since the engine is equipped with a vertical exhaust, a point source was selected.

3 Base elevation was uploaded automatically when running AERMAP on AERMOD.

4 Emission rate set to 1 g/sec because AERMOD results will be loaded into CARB's ADMRT tool.

5 Met elevation from CARB's HARP AERMOD Meteorological Files web page: <u>HARP AERMOD Meteorological Files</u> <u>California Air Resources Board</u>.

The following options were selected when running the HARP2 risk assessment:

- Analysis type: cancer, chronic, and acute.
- Receptor type: individual resident
- Exposure duration: 30 years
- Intake rate percentile: OEHHA derived method
- Pathways to evaluate mandatory minimum pathways.

Figure 2 - Concentration contours generated from the emissions of the diesel engine with a stack height of 6.31 ft.



Table 15 shows the Health Risk Assessment (HRA) values of the proposed project for surrounding exposure.

City of Hollister Engineering Evaluation APP-24-00034 Page 18 of 20

Per Public Notification Requirements of the Health & Safety Code 42301.6, adopted by the Board On 11-14-01, the District will not implement the Public Notification Requirements of H&SC 42301.6 for any project if:

- Carcinogenic Risk is less than 1 in a million.
- Non-Carcinogenic risks are less than the applicable Reference Exposure Levels.

The acute and chronic risks are below MBARD's Rule 1000 threshold of 1.0, and the excess cancer risk of 5.18 in a million is below MBARD's Rule 1000 threshold of 10 in a million. However, since it is within 1000 ft of a school, and the cancer risk exceeds 1 in a million, MBARD will notify residents within 1000 feet of 55 Bundeson Drive, Hollister, CA 95023 and parents of children attending Hollister High School. The public notification files are saved on the permit file.

Risk	Receptor ID	x-coordinate	y-coordinate	Value	Rule 1000 compliant?	Trigger Health and Safety Code & Public Notice ¹
Acute Max HI	882	642666	4078084	0	Yes	No
Chronic Max HI	882	642666	4078084	1.1992e-03	Yes	No
Cancer Risk	882	642666	4078084	5.1877e-06	Yes	Yes

Table 15. Health Risk Assessment Results For School Receptor

1. Reference: MBARD Protocol, Public Notification Requirements - H&SC 42301.6, Affirmed By The Board On 11-14-01

VI. CONCLUSIONS

The equipment has the capability to continue to comply with all applicable MBARD rules and regulations.

VII. RECOMMENDATIONS

Issue Authority to Construct with the following additional conditions:

- 1. No later than twenty-four (24) hours prior to start-up of the equipment, the City of Hollister shall notify the Monterey Bay Air Resources District (MBARD) and arrange for an inspection of the equipment during normal operations to verify compliance with MBARD rules and regulations. [Basis: MBARD Rule 207]
- 2. Annual engine diesel fuel usage, emergency use hours of operation, and maintenance and testing hours of operation shall be reported to MBARD, upon request. [Basis: MBARD Rule 207]
- 3. Except for maintenance and testing purposes, this equipment shall only be operated when the local utility powerline service fails. [Basis: MBARD Rule 1010]
- 4. The equipment shall be operated less than 50 hours per year for maintenance and testing purposes. [Basis: MBARD Rule 1010]
- 5. City of Hollister shall maintain a log, summarized monthly, to record the following:

City of Hollister Engineering Evaluation APP-24-00034 Page 19 of 20

- a. Date of operation;
- b. Start and end engine hour meter readings;
- c. Emergency use hours of operation;
- d. Maintenance and testing hours of operation; and,
- e. Fuel usage, (gallons/month). If no fuel records are available, reported fuel usage can be based on a maximum fuel usage rate of 13.5 gallons per hour for this engine.

Records shall be retained for at least three years and made readily available to MBARD staff upon request. [Basis: MBARD Rule 1010 & 40 CFR 60, Subpart IIII § 60.4214(b)]

- 6. City of Hollister is prohibited from operating the engine for non-emergency use, including maintenance and testing, during the following periods: [Basis: MBARD Rule 1010]
 - a. Whenever there is a Hollister High School sponsored activity; and
 - b. Between the hours of 7:30 AM and 3:30 PM on days when Hollister High School is in session.
- The engine shall be equipped with a non-resettable meter which registers the total hours operated and shall be maintained in good working condition. [Basis: MBARD Rule 1010 & 40 CFR 60, Subpart IIII § 60.4214(b)]
- 8. The engine must be installed and configured according to the manufacturer's emission-related written instructions. [Basis: 40 CFR 60, Subpart IIII §60.4211(c)]
- 9. The engine shall be operated and maintained in accordance with manufacturer's emission-related written instructions. Maintenance records shall be retained with other required engine operational data as specified in Condition 5. [Basis: MBARD Rules 207 and 1010 & 40 CFR 60, Subpart IIII §60.4211(a)]
- 10. Operation of the engine that is not in accordance with the manufacturer's emission-related written instructions, or changes in the manufacturer's emission-related settings constitutes a modification of the permit and requires prior MBARD approval. [Basis: MBARD Rule 207 & 40 CFR 60, Subpart IIII §60.4211(g)]
- 11. The diesel fuel consumed shall meet California Air Resources Board (CARB) specification, or the alternative diesel fuel specifications as defined in MBARD Rule 1010. [Basis: MBARD Rule 1010]
- 12. The exhaust stack discharge shall be vertically configured and equipped without a stationary cap. [Basis: MBARD Rule1000].
- 13. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, an interruptible power contract, or base interruptible program. [Basis: MBARD Rule 1010]
- 14. For engine operations during periods of local utility powerline service failure, or test/exercise time periods equal to or not exceeding 30 minutes per week or 2 hours per month, no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann 2, or equivalent 40 percent opacity. [Basis: MBARD Rule 400]

City of Hollister Engineering Evaluation APP-24-00034 Page 20 of 20

15. For engine operations in which test/exercise time periods exceed 30 minutes per week or two hours per month, no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is dark or darker than Ringelmann 1, or equivalent 20 percent opacity. [Basis: MBARD Rule 400]

16. No emissions shall constitute a public nuisance. [Basis: MBARD Rule 402]