ENGINEERING EVALUATION REPORT
AMAZON DATA SERVICES, INC
FACILITY ID #25045
APPLICATIONS #31312 & #707247

BACKGROUND

Amazon Data Services, Inc (ADS, or Facility) is planning to construct a new data center at 8000 Camino Arroyo in Gilroy, CA (Zip Code: 95020). When fully built out, the facility will be comprised of two (2) data center buildings housing servers and data storage equipment, a security building, along with utility connection upgrades and other redevelopment activities. To provide backup power for essential safety systems and to the servers in the first of the two data center buildings, ADS is proposing to install one (1) 600-kW "life safety" backup generator and twenty-five (25) 2.5-MW "critical backup" generators, respectively. ADS is also proposing to install one (1) 175-kW backup generator for the security building. The facility's peak load of 49-MW exempts it from review or approval from the California Energy Commission (CEC) and the City of Gilroy is the lead agency for the California Environmental Quality Act (CEQA) review done for the project. An Environmental Impact Report (EIR) was prepared for the project.

All twenty-seven (27) backup generators will be powered by emergency standby diesel engines. Twenty-six (26) of them will be equipped with combination diesel particulate filters/diesel oxidation catalysts (DPF/DOC) and twenty-five (25) of them will also be equipped with selective catalytic reduction (SCR). ADS has submitted Applications #31312 and #707247 to apply for Authorities to Construct and Permits to Operate all 27 proposed engines and their associated abatement devices. Both applications are for new sources at the same new facility, they were deemed complete around the same time, and are related to the same CEQA review, so this Engineering Evaluation Report will cover both applications. The sources and abatement devices covered by these applications are identified as follows:

Application #31312 Sources:

S-1: **Emergency Standby Diesel Engine-Genset (Security)**
Make: Caterpillar; Model: C7.1, Model Year: 2026
280 bhp, 1.85 MMBtu/hr

S-2: **Emergency Standby Diesel Engine-Genset (House)**
Make: Caterpillar; Model: C18 Model Year: 2026
900 bhp, 5.85 MMBtu/hr

Abated by

A-2: Diesel Particulate Filter and Oxidation Catalyst (DPF/DOC):
Make: Rypos, Model: HDPF/C

S-3 through S-6:	**Emergency Standby Diesel Engine-Genset (Critical-Gen) Make: Caterpillar; Model: 3516C, Model Year: 2026 3,634 bhp, 24.02 MMBtu/hr**
	Abated by	
A-31, 41, 51, 61	Diesel Particulate Filter and Oxidation Catalyst (DPF/DOC) Make: Rypos, Model: HDPF/C
	And	
A-32, 42, 52, 62	Selective Catalytic Reduction (SCR) Make: Miratech, Model: AT-IV

S-7 & S-8:	**Emergency Standby Diesel Engine-Genset (Critical-Gen) Make: Caterpillar; Model: 3516C, Model Year: 2027+ 3,634 bhp, 24.02 MMBtu/hr**
	Abated by	
A-71 & A-81:	Diesel Particulate Filter and Oxidation Catalyst (DPF/DOC) Make: Rypos, Model: HDPF/C
	And	
A-72 & A-82:	Selective Catalytic Reduction (SCR) Make: Miratech, Model: AT-IV

Application #707247 Sources:

S-9 through S-27:	**Emergency Standby Diesel Engine-Genset (Critical-Gen) Make: Caterpillar; Model: 3516C, Model Year: 2027+ 3,634 bhp, 24.02 MMBtu/hr**
	Abated by	
A-91, 101, 111, 121, 131, 141, 151, 161, 171, 181, 191, 201, 211, 221, 231, 241, 251, 261, 271	Diesel Particulate Filter and Oxidation Catalyst (DPF/DOC) Make: Rypos, Model: HDPF/C
	And	
A-92, 102, 112, 122, 132, 142, 152, 162, 172, 182, 192, 202, 212, 222, 232, 242, 252, 262, 272	Selective Catalytic Reduction (SCR) Make: Miratech, Model: AT-IV

As shown above, the 25 large critical backup engines will all be of identical make, model, rated power output, fuel usage rate, and controlled by identical abatement device packages. The only difference between those engines will be a variety of model years, including 2026, 2027, and possibly later model years depending on when the facility purchases the equipment. If the model year of an engine ends up different than what is represented on the Authority to Construct, the owner/operator will be required by permit condition to promptly

notify the Air District and provide documentation to demonstrate that the new model year engine is still representative of what was evaluated in this application. All 27 proposed engines will run on ultra-low sulfur diesel fuel (ULSD) with a sulfur content that will not exceed 0.0015% by weight.

The proposed facility is located in an overburdened community (OBC) in the City of Gilroy and the application is subject to the public notice requirements of Regulation 2-1-412.

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

EMISSIONS SUMMARY

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} and $PM_{2.5}$). All of these pollutants are briefly discussed on the Air District's web site at www.baaqmd.gov.

The following table summarizes the engine data for each of the three types of engines proposed for this project.

Table 1. Engine Data for S-1 through S-27

Source IDs	Non-Emergency Hrs/year	Rated Power Output (Bhp)	Engine Displacement	Rating, Constant Speed (RPM)	Model Year	EPA Engine Family
S-1	50	280	7.01 L ÷ 6 = 1.2 L/cylinder	1800	2026	TPKXL07.0PW1
S-2	50	900	18.1 L ÷ 6 = 3.0 L/cylinder	1800	2026	TCPXL18.1NYS
S-3 to **S-6**	50	3,634	78.0 L ÷ 16 = 4.9 L/cylinder	1800	2026	TCPXL78.1NZS
S-7 to **S-27**	50	3,634	78.0 L ÷ 16 = 4.9 L/cylinder	1800	2027	VCPXL78.1NZS

The following tables summarize the emission factors and assumptions used for the emission calculations from the proposed engines. S-1 is the only engine that will not be equipped with any emissions abatement devices. S-2 will be equipped with a DPF/DOC to reduce PM emissions. S-3 through S-27 will be equipped with DPF/DOC and an SCR to control emissions of PM, POC, and NOx.

Table 2A. Emission Factor Assumptions for S-1

Pollutant	Emission Factor[2] (g/kW-hr)	Emission Factor[3] (g/bhp-hr)
NOx	3.39	2.53
CO	1.2	0.895
POC (NMHC)	0.19	0.142
$PM_{10}/PM_{2.5}$ [1]	0.12	0.0895

Notes:

1. *It is assumed that all PM emissions are both PM_{10} and $PM_{2.5}$.*
2. *Pollutant emission factors from the US EPA Annual Certification Database for Vehicles, Engines, and Equipment: Nonroad Compression Ignition Engines, NRCI Certification Data (Model Years: 2011-Present.xlsx) for the EPA Engine Family listed in Table 1.*
3. *1.341 bhp/kW.*

Table 2B. Emission Factor Assumptions for S-2

Pollutant	Unabated Emission Factor[2] (g/kW-hr)	Unabated Emission Factor[3] (g/bhp-hr)	Abatement Device Efficiency DRE %	Abated Emission Factor (g/bhp-hr)
NOx	5.09	3.80	-	3.80
CO	0.8	0.597	-	0.597
POC (NMHC)	0.12	0.0895	-	0.0895
$PM_{10}/PM_{2.5}$ [1]	0.07	0.0522	85% [4]	0.0078

Notes:

1. *It is assumed that all PM emissions are both PM_{10} and $PM_{2.5}$.*
2. *Pollutant emission factors from the US EPA Annual Certification Database for Vehicles, Engines, and Equipment: Nonroad Compression Ignition Engines, NRCI Certification Data (Model Years: 2011-Present.xlsx) for the EPA Engine Family listed in Table 1. Although emissions data for Model Year 2026 is not yet available, it is assumed that the emission factors will be identical to the currently available model years because the EPA certified emission rates for Engine Family *CPXL18.1NYS have been identical every year for as far back as the emissions data for that engine family goes.*
3. *1.341 bhp/kW.*
4. *S-2 is equipped with a DPF that has Level 3+ verification per CARB Executive Order DE-07-001-11, controlling PM emissions by 85%.*

Table 2C. Emission Factor Assumptions for S-3 through S-27

Pollutant	Unabated Emission Factor[2,3] (g/kW-hr)	Unabated Emission Factor[4] (g/bhp-hr)	Abatement Device Efficiency[5] DRE %	Abated Emission Factor (g/bhp-hr)
NOx	5.07	3.78	86.8%	0.50
CO	1.02	0.76	0.0%	0.76
POC (NMHC)	0.26	0.194	27.8%	0.14
$PM_{10}/PM_{2.5}$ [1]	0.12	0.0895	77.7%	0.02

Notes:

1. *It is assumed that all PM emissions are both PM_{10} and $PM_{2.5}$.*
2. *Unabated emission factors for NOx, POC (NMHC) and PM are from the US EPA Annual Certification Database for Vehicles, Engines, and Equipment: Nonroad Compression Ignition Engines, NRCI Certification Data (Model Years: 2011-Present.xlsx) for the EPA Engine Family listed in Table 1. Although emissions data for Model Years 2026 and 2027 are not yet available, it is assumed that the emission factors will be identical to the currently*

*available model years because the EPA certified emission rates for Engine Family *CPXL78.1NZS have been identical every year for as far back as the emissions data for that engine family goes:*

3. *Emission factor for CO is the applicant-requested 1.02 g/kW-hr (0.76 g/bhp-hr). The applicant has agreed to demonstrate compliance with this limit via source test.*
4. *1.341 bhp/kW.*
5. *Abatement efficiencies for NOx, POC, and PM are back-calculated from the respective EPA Tier 4 emissions standards. Permit limits will be imposed to ensure compliance with these limits.*

For S-1 through S-27, the emission factor for SO_2 is from Chapter 3, Table 3.4-1 of the EPA Document AP-42, Compilation of Air Pollutant Emission Factors, which is based on full conversion of fuel sulfur to SO_2 and which will therefore be considered applicable to any diesel engine (sulfur content will be assumed to be the California limit of 0.0015 wt% sulfur) is calculated as follows:

SO_2: *8.09E-3 (% S in fuel oil) lb/hp-hr = 8.09E-3 (0.0015% S) (454 g/lb)*
*= **0.0055 g/hp-hr***

Annual Criteria Pollutant Emissions:

The data summarized above will be used to calculate the annual criteria pollutant emissions from S-1 through S-27. Annual emission rates per engine are shown in the following tables.

Table 3A. Annual Emissions from S-1

Per Engine																
NOx	=	(	2.53	g/hp-hr)	(	280	hp)	(	50	hr/yr)	(lb/453.7g)	=	78.07	lb/yr	=	0.039 TPY
CO	=	(	0.895	g/hp-hr)	(	280	hp)	(	50	hr/yr)	(lb/453.7g)	=	27.62	lb/yr	=	0.014 TPY
POC	=	(	0.142	g/hp-hr)	(	280	hp)	(	50	hr/yr)	(lb/453.7g)	=	4.38	lb/yr	=	0.002 TPY
$PM_{10}/PM_{2.5}$	=	(	0.0895	g/hp-hr)	(	280	hp)	(	50	hr/yr)	(lb/453.7g)	=	2.76	lb/yr	=	0.001 TPY
SO_2	=	(	0.0055	g/hp-hr)	(	280	hp)	(	50	hr/yr)	(lb/453.7g)	=	0.17	lb/yr	=	0.000 TPY

Table 3B. Annual Emissions from S-2

Per Engine																
NOx	=	(	3.80	g/hp-hr)	(	900	hp)	(	50	hr/yr)	(lb/453.7g)	=	376.88	lb/yr	=	0.188 TPY
CO	=	(	0.597	g/hp-hr)	(	900	hp)	(	50	hr/yr)	(lb/453.7g)	=	59.21	lb/yr	=	0.030 TPY
POC	=	(	0.0895	g/hp-hr)	(	900	hp)	(	50	hr/yr)	(lb/453.7g)	=	8.88	lb/yr	=	0.004 TPY
$PM_{10}/PM_{2.5}$	=	(	0.0078	g/hp-hr)	(	900	hp)	(	50	hr/yr)	(lb/453.7g)	=	0.77	lb/yr	=	0.000 TPY
SO_2	=	(	0.0055	g/hp-hr)	(	900	hp)	(	50	hr/yr)	(lb/453.7g)	=	0.55	lb/yr	=	0.000 TPY

Table 3C. Annual Emissions from S-3 through S-27

Per Engine																
NOx	=	(	0.50	g/hp-hr)	(	3634	hp)	(	50	hr/yr)	(lb/453.7g)	=	200.23	lb/yr	=	0.100 TPY
CO	=	(	0.76	g/hp-hr)	(	3634	hp)	(	50	hr/yr)	(lb/453.7g)	=	304.35	lb/yr	=	0.152 TPY
POC	=	(	0.14	g/hp-hr)	(	3634	hp)	(	50	hr/yr)	(lb/453.7g)	=	56.07	lb/yr	=	0.028 TPY
$PM_{10}/PM_{2.5}$	=	(	0.02	g/hp-hr)	(	3634	hp)	(	50	hr/yr)	(lb/453.7g)	=	8.01	lb/yr	=	0.004 TPY
SO_2	=	(	0.0055	g/hp-hr)	(	3634	hp)	(	50	hr/yr)	(lb/453.7g)	=	2.20	lb/yr	=	0.001 TPY

Table 4 below summarizes the combined annual emissions from all proposed engines, separated by application number.

Table 4. Combined Annual Emissions for S-1 through S-27 (by Application)

Pollutant	App #31312 S-1 through S-8		App #707247 S-9 through S-27	
	Annual Emissions (lbs/year)	Annual Emissions (tons/year)	Annual Emissions (lbs/year)	Annual Emissions (tons/year)
NOx	1,656	0.828	3,804	1.902
CO	1,913	0.956	5,783	2.891
POC	350	0.175	1,065	0.533
$PM_{10}/PM_{2.5}$	51.6	0.026	152	0.076
SO_2	13.9	0.007	41.9	0.021

Maximum Daily Criteria Pollutant Emissions:

Daily emissions are calculated to establish whether a source triggers the requirement for Best Available Control Technology (BACT) (10 lb/highest day total source emissions for any BACT pollutant). A full 24-hour day is assumed since no daily limits are imposed on intermittent and unexpected operations. Since the abated PM emission rates from S-3 through S-27 are not certified by EPA/CARB, the unabated $PM_{10}/PM_{2.5}$ emission factors are used to calculate maximum daily emissions from those engines. The table below shows the calculated maximum daily emissions for each new source proposed in this application.

Table 5A. Maximum Daily Emissions from S-1

Per Engine														
NOx	=	(	2.53	g/hp-hr)	(	280	hp)	(	24	hr/day)	(lb/453.7g)	=	37.47	lb/day
CO	=	(	0.895	g/hp-hr)	(	280	hp)	(	24	hr/day)	(lb/453.7g)	=	13.26	lb/day
POC	=	(	0.142	g/hp-hr)	(	280	hp)	(	24	hr/day)	(lb/453.7g)	=	2.10	lb/day
$PM_{10}/PM_{2.5}$	=	(	0.0895	g/hp-hr)	(	280	hp)	(	24	hr/day)	(lb/453.7g)	=	1.33	lb/day
SO_2	=	(	0.0055	g/hp-hr)	(	280	hp)	(	24	hr/day)	(lb/453.7g)	=	0.08	lb/day

Table 5B. Maximum Daily Emissions from S-2

Per Engine														
NOx	=	(	3.80	g/hp-hr)	(	900	hp)	(	24	hr/day)	(lb/453.7g)	=	180.90	lb/day
CO	=	(	0.597	g/hp-hr)	(	900	hp)	(	24	hr/day)	(lb/453.7g)	=	28.42	lb/day
POC	=	(	0.090	g/hp-hr)	(	900	hp)	(	24	hr/day)	(lb/453.7g)	=	4.26	lb/day
$PM_{10}/PM_{2.5}$	=	(	0.0078	g/hp-hr)	(	900	hp)	(	24	hr/day)	(lb/453.7g)	=	0.37	lb/day
SO_2	=	(	0.0055	g/hp-hr)	(	900	hp)	(	24	hr/day)	(lb/453.7g)	=	0.26	lb/day

Table 5C. Maximum Daily Emissions from S-3 through S-27

Per Engine														
NOx	=	(	0.50	g/hp-hr)	(	3634	hp)	(	24	hr/day)	(lb/453.7g)	=	96.11	lb/day
CO	=	(	0.76	g/hp-hr)	(	3634	hp)	(	24	hr/day)	(lb/453.7g)	=	146.09	lb/day
POC	=	(	0.14	g/hp-hr)	(	3634	hp)	(	24	hr/day)	(lb/453.7g)	=	26.91	lb/day
$PM_{10}/PM_{2.5}$	=	(	0.0895	g/hp-hr)	(	3634	hp)	(	24	hr/day)	(lb/453.7g)	=	17.20	lb/day
SO_2	=	(	0.0055	g/hp-hr)	(	3634	hp)	(	24	hr/day)	(lb/453.7g)	=	1.06	lb/day

Secondary Emissions:

Ammonia (NH_3) is used as a reagent in Selective Catalytic Reduction (SCR) units to convert NOx to nitrogen gas (N_2) and water (H_2O). SCRs can emit NH_3 secondarily when unreacted NH_3 "slips" through and enters the exhaust stream, where it can then reach the atmosphere. Because ammonia is a toxic air contaminant (TAC), these secondary emissions must be evaluated to determine compliance with Regulation 2, Rule 5.

The following are the parameters and methods used to calculate ammonia emissions from the proposed sources that will be equipped with SCRs (S-3 through S-27).

Table 6. Input Parameters for Ammonia Slip (per engine, for S-3 through S-27)

Parameter	*Symbol*	*Value*	*Units*	*Notes/Basis*
Molar Weight, NH_3:	MW_{NH3}	17.03	*lb/lbmol*	*Weight of 1 lbmol NH_3*
Molar Volume, Air:	$V_{n,air}$	386.8	*scf/lbmol*	*Volume of 1 lbmol of Air at standard temperature and pressure (T = 70°F, P = 1 atm)*
NH_3 Slip, Volumetric Concentration: (@ 15% O_2)	-	10	*ppmv*	*Maximum for standard permit conditions (and SCR manufacturer guaranteed limit)*
NH_3 Slip, Volumetric Concentration: (@ 0% O_2)	-	35.42	*ppmv*	*Corrected to 0% O_2*
NH_3 Slip, Mole Fraction:	$X_{i,NH3}$	3.542E-05	-	*lbmol NH_3 per lbmol Air (@ 0% O_2)*
Actual Exhaust Flow Rate:	-	18,497	*acfm*	*Engine performance data sheet (at 100% load)*
Actual Exhaust Temperature:	-	853	*°F*	*Engine performance data sheet (at 100% load)*
	-	1,312.67	*°R*	*Calculated*
Exhaust Water (H_2O) Content:	-	10	*%*	*SCR Manufacturer data sheet*
Exhaust Oxygen (O_2) Content:	-	9.4	*%*	*SCR Manufacturer data sheet*
Exhaust Flow Rate: (Dry basis, standard conditions)	$Q_{s,dry}$	3,696.1	*dscfm*	*Corrected to 0% O_2, 0% H_2O, and standard temperature and pressure (T = 70°F, P = 1 atm)*

Using the above parameters, the following equation is used to calculate hourly ammonia emissions:

$$\textbf{Hourly Emission Rate}\left(\frac{\textbf{lbs NH3}}{\textbf{hour}}\right) = X_{i,NH3} * \ Q_{s,dry} * \left(\frac{60\ min}{1\ hr}\right) \div V_{n,air} * \ MW_{NH3}$$

The annual emission rate of ammonia is calculated by multiplying the hourly emission rate by the annual limit of non-emergency operation for the engines (50 hours/year). A summary of the hourly and annual emission rates is provided below, per engine.

Table 7. Hourly & Annual Ammonia Emission Rates
(per engine, for S-3 through S-27)

Pollutant	Hourly Emission Rate (lbs/hour)	Annual Emission Rate (lbs/year)
Ammonia (NH_3)	0.346	17.3

CUMULATIVE INCREASE, POTENTIAL TO EMIT, AND OFFSETS

Cumulative Increase:

Cumulative Increase is defined as the sum of all emissions increases authorized by authorities to construct and permits to operate issued to a facility, less any onsite emission reduction credits (emission offsets), since the applicable cumulative increase baseline date, which is April 5, 1991, for POC, NOx, SO_2, PM_{10}, and CO, and August 31, 2016, for $PM_{2.5}$. The cumulative increase for the facility resulting from the sources of these two applications are summarized in the table below.

Table 8. Cumulative Increase for Facility ID 25045

Pollutant	Current (ton/year)	App #31312 Increase (ton/year)	App #707247 Increase (ton/year)	New Total (ton/year)
NOx	0.000	0.828	1.902	2.730
CO	0.000	0.956	2.891	3.848
POC	0.000	0.175	0.533	0.707
PM_{10}	0.000	0.026	0.076	0.102
$PM_{2.5}$	0.000	0.026	0.076	0.102
SO_2	0.000	0.007	0.021	0.028

Potential to Emit (PTE):

In accordance with District Policy[1], the standard potential to emit (PTE) for emergency engines is calculated using the annual non-emergency operating hours plus an assumed 100 hours/year of emergency operation.

[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).*

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 the purposes of the Toxics New Source Review requirements of District Reg. 2-5 (per Regulation 2-5-111).

Therefore, the PTE for the emergency engines in this application is based on 150 hours/year engine operation (50 hr/yr non-emergency plus 100 hr/yr emergency purposes). The table below shows the calculated facility-wide PTE based on District Policy.

Table 9. Facility-Wide Potential to Emit for Facility ID 25045
(Per District Policy: Calculating PTE for Emergency Backup Power Generators)

Pollutant	Current PTE (ton/year)	App #31312 PTE Increase (ton/year)	App #707247 PTE Increase (ton/year)	New Total PTE (ton/year)
NOx	0.000	2.485	5.707	8.191
CO	0.000	2.869	8.674	11.544
POC	0.000	0.524	1.598	2.122
PM_{10}	0.000	0.077	0.228	0.306
$PM_{2.5}$	0.000	0.077	0.228	0.306
SO_2	0.000	0.021	0.063	0.084

Offsets:

Regulation 2, Rule 2 establishes emission offset requirements for POC, NO_x, $PM_{2.5}$, PM_{10}, and SO_2. Per Section 2-2-302, if a facility will have a PTE more than 10 tons per year but less than 35 tons per year of NO_x or POC 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 offsets shall be provided by the District's Small Facility Banking Account (SFBA) unless the applicant owns offsets. If the facility will have a PTE of more than 35 tons per year of NOx or POC after the new or modified source is constructed, offsets must be provided by the facility at a 1.15:1 ratio for any un-offset cumulative increase in emissions at the facility. Additionally, Section 2-2-303 establishes emission offset requirements from new or modified sources located at a facility with the PTE of 100 tons/year for $PM_{2.5}$, PM_{10}, or SO_2.

As shown in the facility-wide PTE summary (Table 9), calculated per District Policy, the addition of S-1 through S-27 does not bring the facility's PTE of POC, NO_x, $PM_{2.5}$, PM_{10}, or SO_2 to the respective thresholds that trigger offset requirements. Therefore, no offsets are required.

STATEMENT OF COMPLIANCE

Regulation 2 - Permits, Rule 1 – General Requirements

Applicability of CEQA (Section 2-1-310)

Because the proposed sources are subject to BACT requirements, the Air District's approval of an Authority to Construct/Permit to Operate for the proposed source is discretionary, and it must be reviewed in accordance with the requirement of CEQA.

The installation and operation of S-1 through S-27 is part of a larger development project in the City of Gilroy. Titled the "Gilroy Data Center" (GDC), Amazon Data Services (ADS) has proposed to build a data center at a 56-acre undeveloped parcel located at the southeast end of Arroyo Circle in the City of Gilroy. When fully built out, the data center will include two (2) data center buildings (each approximately 218,000 sq ft) and one (1) security building, totaling approximately 438,500 sq ft. Additional site improvements include a substation/switchyard, offsite transmission upgrades to the existing Pacific Gas & Electric (PG&E) transmission and distribution system, Battery Energy Storage Systems (BESS), and other utility interconnections. Phase I of the project includes the construction of the first of the two data center buildings (Building 1) and requires a 49-megawatt (MW) connection to PG&E service. This service would be supported by twenty-five (25) 2.5 MW emergency generators to power the servers in the event of an emergency, one (1) 600-kilowatt (kW) emergency generator to provide backup power to the essential safety systems of Building 1. Phase I activities will also include construction of paved parking, landscaping, drainage facilities, and the 2,500 sq ft security building, the latter being equipped with one (1) 175 kW emergency generator to provide backup power. The total of twenty-seven (27) emergency generators will be powered by standby diesel engines. These two current applications (#31312 & #707247) include all the proposed standby diesel engines necessary for the project. The second data center building (Building 2) will be constructed in Phase II and will not include any diesel-powered generators. Instead, backup power will be provided via emerging battery or fuel-cell technology. If the operations of Building 2 include any sources of air pollution that require permitting, ADS will be required to apply for those sources separately in a future application.

The City of Gilroy (City) is the CEQA lead agency for the GDC project and on July 3, 2025, the City certified a Final Environmental Impact Report (FEIR) and, under State Clearinghouse Number SCH #2022110127, they adopted CEQA Findings, a Statement of Overriding Considerations (SOC), and a Mitigation Monitoring & Reporting Program (MMRP) for the project. On August 20, 2025, the City filed a Notice of Determination (NOD) with the county clerk of the County of Santa Clara, noting that the project will have a significant effect on the environment and as such, mitigation measures were made a condition of approval.

As a responsible agency for the Project, the Air District has reviewed and considered the FEIR and agrees with the City's assessment that certain significant environmental impacts could occur as a result of the Project. For each significant impact, changes or alterations

have been required in, or incorporated into, the Project which avoids or substantially lessens the environmental effects as identified in the FEIR to the extent feasible. In approving this Project, the City adopted mitigation measures as a condition of the approval and adopted an MMRP. However, potentially significant and unavoidable impacts remain after mitigation. Based on its review of the Project's environmental impacts in the City's environmental analysis and in the applicant's permit application, the Air District is not imposing any new mitigation measures under CEQA, so the Air District is not adopting an MMRP. Before making a final decision on this application, the Air District will consider any public comments received during the 30-day public comment period required by Air District Regulation 2-1-412.

The City's FEIR is available for public review at the Gilroy Planning Division office (7351 Rosanna Street) and the Gilroy Public Library (350 W. Sixth Street). The FEIR and additional CEQA documents are also available online on the City's website[2] and on the State of California's CEQAnet Web Portal[3].

CEQA-Related Information Requirements (Section 2-1-426)

The Air District has received the necessary information indicating that the City is acting as the Lead Agency for CEQA purposes. As described above, this project is subject to an EIR prepared by the City. Therefore, this project complies with Regulation 2-1-426.2.1 and the application has been deemed complete for CEQA purposes.

Public Notice, Schools & Overburdened Communities (Section 2-1-412)

A new or modified source located (1) 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* or (2) within an Overburdened Community (OBC) as defined in Regulation 2-1-243 that requires a Health Risk Assessment (HRA) pursuant to Regulation 2-5-401 shall prepare and distribute a public notice in accordance with subsections 412.1 and 412.2 of *Regulation 2, Rule 1 General Requirements*.

The proposed sources will not be located within 1,000 feet of a K-12 school, but they will be located in an OBC of Gilroy and the project is subject to an HRA. Therefore, a public notification pursuant to Reg. 2-1-412 is required. A public notice will be sent to all addresses within 1,000 feet of the facility and there will be a 30-day public comment period.

Regulation 2 - Permits, Rule 2 – New Source Review

Best Available Control Technology Requirement (Section 2-2-301)

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, $PM_{10,}$ or $PM_{2.5}$. For purposes of this section of the evaluation, "PM" will be used to represent both $PM_{10,}$ and $PM_{2.5}$.

[2] *City of Gilroy Planning Division, Gilroy Data Center project webpage: https://www.cityofgilroy.org/1019/Amazon-Data-Center*
[3] *CEQA Project Information & Documents for the Gilroy Data Center: https://ceqanet.lci.ca.gov/2022110127/2*

Based on the emission calculations shown in Tables 5A, 5B, and 5C, BACT is triggered for the pollutants listed below (by each engine type) because the maximum daily emissions of these pollutants exceed 10 lbs/day/source:

- **S-1:** NOx, CO
- **S-2:** NOx, CO
- **S-3 through S-27:** NOx, CO, POC, PM

Per Air District Regulation 2-2-202, BACT is defined as the most stringent emissions limitation, control device, or control technique that (1) has been achieved in practice at other similar sources and/or (2) is technologically feasible and cost-effective. To determine what level of control constitutes BACT for the proposed emergency standby diesel engines, the Air District reviewed available control technologies that can be effective at controlling NOx, CO, POC, and PM from these sources.

Control Technology Review

Several control technologies can reduce NOx, CO, POC, and PM emissions from emergency backup diesel engines. These technologies have been divided into three categories: Clean Fuels, Combustion Technologies, and Post-Combustion Technologies.

Clean Fuel Technology

The use of diesel fuel with a low nitrogen content reduces the amount of NOx formed during combustion. The less nitrogen available in the fuel, the less that can be converted to NOx upon combustion. Diesel fuel producers are not required to remove nitrogen from the fuel specifically for NOx reduction purposes. But they are required to remove sulfur to comply with regulatory mandates, and the hydro-treating technique they use to remove the sulfur also removes most of the nitrogen. As a result, using ultra-low-sulfur diesel (ULSD) fuel will provide benefits in reducing NOx emissions as well as reducing sulfur dioxide emissions. ULSD fuel is required to be used by the California Air Resources Board (CARB) and is therefore achieved in practice for these engines.

Combustion Technologies

NOx, CO, and POC emissions can be minimized by optimizing the engines' combustion process using techniques such as injection timing retard, preignition chamber combustion, air-to-fuel ratio adjustments, and derating. These combustion characteristics are determined by the design of the engine, which is dictated by the manufacturer and cannot be controlled by the end user. The end user can reduce emissions by using the cleanest engines available, however. Engines are certified to meet progressively more stringent emissions performance standards using EPA's "Tier" system, with higher-tier engines representing more stringent levels of emissions control[4]. For the engine power rating category that includes the proposed

[4] *EPA's diesel emission tiers range from Tier 0 through Tier 4. The Tier 4 standards require catalytic control devices, which are addressed in the "BACT Analysis" portion of this section of the engineering evaluation. For diesel engines with a rated power output of at least 175 horsepower (hp) and less than 300 hp (like the proposed S-1), the next most stringent set of standards that can be achieved with combustion controls only for this size category is Tier 3. For diesel engine with a rated power output greater than 750 hp (like the proposed S-2 through S-27), there are no Tier 3 standards. After Tier 2, the next most stringent set of standards that can be achieved with combustion controls only for that size category is Tier 4, which requires catalytic control devices. See California Air Resources Board, Non-Road*

S-1, the most stringent level of level of emissions control that can be achieved using combustion controls is Tier 3. For the engine power rating category that includes the proposed S-2 through S-27, the most stringent level of emissions control that can be achieved using combustion controls is Tier 2. The use of the applicable Tier rated engines is achieved in practice.

Post-Combustion Technologies
Currently, the most effective and prevalent post combustion technologies used to abate NOx, CO, and POC rely on the use of catalysts. For NOx reduction, catalytic technology can come in the form of a selective catalytic reduction (SCR) unit, lean-NOx catalyst, or NOx adsorber. For CO and POC, reduction is typically achieved through an oxidation catalyst (DOC). For each of these technologies, the catalyst is used to lower the heat of reaction that is required for the breakdown and/or conversion of the target pollutants. For PM, the most effective and prevalent post-combustion control technology used is a diesel particulate filter (DPF). For large emergency standby diesel engines (power rating exceeding 1,000 bhp), the use of post-combustion control technologies is also achieved in practice. Other facilities operating similar large engines have achieved emission rates equivalent to EPA's Tier 4 standards, which are the most stringent standards achievable by any engines that are available on the market today. For large engines, the use of post-combustion technologies to achieve EPA Tier 4 emission standards is achieved in practice.

BACT Analyses:
The first step in the BACT analysis is to determine what level of emissions control has been achieved in practice for the source under review. The second step in the BACT analysis is to determine whether there is any more stringent level of control, beyond what has been achieved in practice, that is technologically feasible and cost-effective for the source. If the more stringent level of control is deemed technologically feasible and cost-effective, then it must be implemented for the source to comply with BACT. If the technologically feasible level of control is determined not to be cost-effective, then the level of control that is achieved in practice must be used for the source to comply with BACT.

Because Application #31312 was deemed complete on November 8, 2024, the BACT/TBACT determination that took effect on December 2, 2024, which deemed EPA Tier 4 standards as achieved-in-practice BACT for standby diesel engines rated less than 1,000 bhp does not apply to the two smaller engines from that application (S-1 & S-2). Therefore, the BACT analyses for these two engines are done based on what was considered achieved-in-practice BACT when the application was deemed complete.

BACT Analysis for S-1 & S-2, Standby Diesel Engines, rated at 280 bhp & 900 bhp:
When considering post-combustion technologies that have been achieved in practice for controlling NOx and CO from smaller emergency standby engines like S-1 and S-2, the Air District consulted BACT clearinghouses and guidelines published by US EPA, CARB, and other Air Districts. For standby diesel engines within the power rating range of 175 to 300 bhp (like S-1) and the range of 750 to 1,000 bhp (like S-2), the use of Clean Fuel Technology

Diesel Engine Certification Tier Chart, available at: https://ww2.arb.ca.gov/resources/documents/non-road-diesel-engine-certification-tier-chart-pdf.

and an engine certified to the appropriate EPA Tier Rating are the most stringent levels of control that would qualify as achieved-in-practice BACT under the Air District program. The most stringent EPA Tier Ratings that apply to S-1 and S-2 are Tier 3 and Tier 2, respectively. Because S-1 is certified to achieve Tier 3 standards without post-combustion control and S-2 is certified to achieve Tier 2 standards without post-combustion control, post-combustion catalytic control technologies are not considered achieved in practice BACT for NOx or CO for these engines. The Air District therefore considered whether catalytic control devices would be technologically feasible and cost effective for S-1 or S-2.

Catalytic control devices only become effective when the engines are operated for longer periods in the case of a power outage. Emergency operation will be infrequent and is not expected to last for a significant amount of time when it does occur. As a result, the emission reduction benefit from having a catalytic control device would be less than optimal and would not be cost-effective under the Air District's BACT regulations given the costs involved. Studies that have evaluated the additional costs and emission reduction benefits that would be involved in implementing catalytic control technologies on emergency standby engines have shown that the cost would be in the range of $68,000 to $682,000 per ton of emission reduction benefit.[5] This cost per ton greatly exceeds the BACT cost-effectiveness threshold of $17,500 per ton for NOx, which is set forth in Air District's BACT Policy & Implementation Procedure. Therefore, the use of catalytic control devices are not considered technologically feasible and cost-effective for the proposed S-1 or S-2.

From the analysis of the technologies that could be implemented to reduce NOx and CO from S-1 and S-2, the Air District has concluded that the use of ULSD fuel and an engine certified by the EPA to Tier 3 and Tier 2, respectively, are achieved-in-practice control technologies for those engines. These control technologies are therefore required as BACT for S-1 and S-2. S-1 is certified to EPA Tier 3 emissions standards, S-2 is certified to EPA Tier 2 emissions standards, and the owner/operator will be required by CARB regulations to use ULSD fuel for all diesel-fueled engines. In doing so, S-1 and S-2 will comply with the BACT requirements under Regulation 2-2-301 for all applicable pollutants. A summary of the demonstration of compliance with the engines' emissions standards is provided at the end of this section.

BACT Analysis for S-3 through S-27, Standby Diesel Engines rated 3,634 bhp:
S-3 through S-27 are all identical engines, so the following BACT analysis applies to all 25 of those proposed engines.

All twenty-five (25) of these proposed engines are emergency standby engines with a rated power output exceeding 1,000 bhp. Post-combustion control technologies, such as catalytic control devices and diesel particulate filters, are achieved in practice for controlling emissions of NOx, CO, POC, and PM from emergency standby engines of this power class. Other facilities operating similar emergency standby engines have achieved emissions rates equivalent to EPA's Final Tier 4 (Tier 4F) standards, which are the most stringent standards

[5] *California Air Resources Board, Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Airborne Toxic control Measure for Stationary Compression Ignition Engines (Sept. 2010), available at www.arb.ca.gov/regact/2010/atcm2010/atcmisor.pdf.*

achievable by any engines that are available on the market today. These control technologies and emission rates are therefore required as BACT for these engines. S-3 through S-27 will be required by CARB regulations to use ULSD fuel and will be required by Air District permit conditions to utilize the appropriate post-combustion control technologies to meet the EPA Tier 4 emissions standards for the applicable pollutants. In doing so, S-3 through S-27 will comply with the BACT requirements under Regulation 2-2-301 for all applicable pollutants.

According to the emissions data certified by the EPA for the engine families of S-3 through S-27, CO is the only pollutant for which the uncontrolled emission factor meets the Tier 4F standard. The expected abatement efficiencies of the proposed SCR and DPF/DOC will control emissions of NOx, POC, and PM to levels that comply with the applicable BACT emission limits shown below. However, because the abated emission rates are not certified by the EPA to the Tier 4F standards for NOx, POC, and PM, startup source testing followed by periodic source testing of these pollutants will be required to demonstrate compliance. To prevent engine tuning to reduce NOx emissions at the expense of increasing CO emissions, source testing will also be required for CO. The source testing requirements will be outlined in the permit conditions for S-3 through S-27. Instead of the Tier 4 limit for CO (2.6 g/bhp-hr), the applicant has requested that the CO limit in the permit conditions be set at 0.76 g/bhp-hr.

A summary of each type of engine's compliance with the appropriate emissions standards is provided in the table below.

Table 10. BACT Analysis Summary: S-1, S-2, and S-3 through S-27

Pollutant	***S-1***		***S-2***		***S-3 through S-27***	
	BACT/Tier 3 Emission Std. 175 ≤ HP < 300 (g/bhp-hr)	Certified Emission Rate (g/bhp-hr)	**BACT/Tier 2 Emission Std. 750 < HP < 1000 (g/bhp-hr)**	Certified Emission Rate (g/bhp-hr)	**BACT/ Tier 4F Emission Std. 1000 ≤ HP (g/bhp-hr)**	Abated Emission Rate (g/bhp-hr)
NOx	**2.85**	2.53	**4.56**	3.80	**0.50**	0.50
CO	**2.60**	0.895	**2.60**	0.597	**2.60**	0.76
POC	**-**	-	**-**	-	**0.14**	0.14
PM	**-**	-	**-**	-	**0.02**	0.02

The BACT requirements for S-1 through S-27 are satisfied.

Prevention of Significant Deterioration (PSD) (Sections 2-2-304 through 307)

These sections establish standards for PSD BACT requirements, PSD source impact analysis requirements, and PSD additional impacts analysis requirements.

This facility will not emit 100 tons or more per year of any PSD pollutant and, therefore, is not a major PSD facility and is not subject to any of the PSD requirements in Regulations 2-2-304 through 2-2-307 per Regulation 2-2-224.

NAAQS Protection Requirement (Section 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 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 (Section 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 Air District 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 New Source Review of Toxic Air Contaminants

This rule requires that any new or modified source of toxic air contaminant (TAC) emissions subject to Authority to Construct or Permit to Operate requirements shall be evaluated for potential public exposure and health risk and meet the applicable standards and administrative requirements, as specified in Sections 300 and 400, respectively.

All of the proposed engines will emit diesel exhaust particulate matter (Diesel PM) from the combustion of diesel fuel and the engines equipped with SCRs (S-3 through S-27) will emit Ammonia (NH_3) secondarily. Both Diesel PM and Ammonia are TACs under Air District Regulation 2, Rule 5. Air District Regulation 2, Rule 5 specifies that Diesel PM will be used as a surrogate for all TAC emissions from diesel-fueled compression-ignition internal combustion engines, as this is the principal driver of the health risk associated with this type of equipment. The calculated emissions increase of Diesel PM and Ammonia associated with the project are summarized in the tables below. Methods and basis for the calculations are described earlier in the "Emissions Summary" section of this evaluation.

The proposed sources are the first sources at this facility, so there are no additional related sources to include in the project's TAC emissions.

Table 11A. Project TAC Emissions – Diesel Exhaust Particulate Matter (Diesel PM)

Source (App #)	PM Emission Factor (g/bhp-hr)	Horsepower	Annual Usage (hours/year)	Diesel PM Emissions (lb/year)
S-1 (AN 31312)	0.0895	280	50	2.76
S-2 (AN 31312)	0.0078	900	50	0.78
S-3 (AN 31312)	0.02	3,634	50	8.01
S-4 (AN 31312)	0.02	3,634	50	8.01
S-5 (AN 31312)	0.02	3,634	50	8.01
S-6 (AN 31312)	0.02	3,634	50	8.01
S-7 (AN 31312)	0.02	3,634	50	8.01
S-8 (AN 31312)	0.02	3,634	50	8.01
S-9 (AN 707247)	0.02	3,634	50	8.01
S-10 (AN 707247)	0.02	3,634	50	8.01
S-11 (AN 707247)	0.02	3,634	50	8.01
S-12 (AN 707247)	0.02	3,634	50	8.01
S-13 (AN 707247)	0.02	3,634	50	8.01
S-14 (AN 707247)	0.02	3,634	50	8.01
S-15 (AN 707247)	0.02	3,634	50	8.01
S-16 (AN 707247)	0.02	3,634	50	8.01
S-17 (AN 707247)	0.02	3,634	50	8.01
S-18 (AN 707247)	0.02	3,634	50	8.01
S-19 (AN 707247)	0.02	3,634	50	8.01
S-20 (AN 707247)	0.02	3,634	50	8.01
S-21 (AN 707247)	0.02	3,634	50	8.01
S-22 (AN 707247)	0.02	3,634	50	8.01
S-23 (AN 707247)	0.02	3,634	50	8.01
S-24 (AN 707247)	0.02	3,634	50	8.01
S-25 (AN 707247)	0.02	3,634	50	8.01
S-26 (AN 707247)	0.02	3,634	50	8.01
S-27 (AN 707247)	0.02	3,634	50	8.01
			Total (lbs/year)	**203.77**
			HRA Trigger (lbs/year)	***0.26***

Table 11B. Project TAC Emissions – Ammonia (NH_3)

Source (App #)	Hourly NH_3 Emissions (lbs/hr)	Acute TL (lbs/hr)	Annual NH_3 Emissions (lbs/yr)	Chronic TL (lbs/yr)	Exceeds TL? (Y/N)
S-3 (AN 31312)	0.346		17.3		No
S-4 (AN 31312)	0.346		17.3		No
S-5 (AN 31312)	0.346		17.3		No
S-6 (AN 31312)	0.346		17.3		No
S-7 (AN 31312)	0.346		17.3		No
S-8 (AN 31312)	0.346		17.3		No
S-9 (AN 707247)	0.346		17.3		No
S-10 (AN 707247)	0.346		17.3		No
S-11 (AN 707247)	0.346		17.3		No
S-12 (AN 707247)	0.346		17.3		No
S-13 (AN 707247)	0.346		17.3		No
S-14 (AN 707247)	0.346		17.3		No
S-15 (AN 707247)	0.346	*1.4*	17.3	*7,700*	No
S-16 (AN 707247)	0.346		17.3		No
S-17 (AN 707247)	0.346		17.3		No
S-18 (AN 707247)	0.346		17.3		No
S-19 (AN 707247)	0.346		17.3		No
S-20 (AN 707247)	0.346		17.3		No
S-21 (AN 707247)	0.346		17.3		No
S-22 (AN 707247)	0.346		17.3		No
S-23 (AN 707247)	0.346		17.3		No
S-24 (AN 707247)	0.346		17.3		No
S-25 (AN 707247)	0.346		17.3		No
S-26 (AN 707247)	0.346		17.3		No
S-27 (AN 707247)	0.346		17.3		No
Project Total:	**8.65**	***1.4***	**432**	***7,700***	**Yes**

Regulation 2-5-402 requires a Health Risk Assessment (HRA) if TAC emissions exceed the screening thresholds set forth in Table 2-5-1 in Regulation 2, Rule 5. For this project, the emissions of diesel particulate matter and ammonia exceed the Table 2-5-1 chronic and acute trigger levels, respectively.

This application does not qualify for HRA streamlining due to the project TAC emission rates and proximity to nearby sensitive receptors. Therefore, a refined HRA was performed to evaluate the potential chronic carcinogenic and non-carcinogenic health risks from Diesel PM and Ammonia emissions from this project. The HRA evaluated risks to workers and to residents in the vicinity of the project as well as the point of maximum impact (PMI). The HRA assumes that the applicable engines will operate up to the maximum allowable hours/year of non-emergency operation for each engine. Emissions from emergency operation are not included pursuant to the exemption set forth in Regulation 2-5-111. The results of the HRA are summarized in Tables 12A and 12B below[6].

[6] *A minor error in the Diesel PM emission calculations for S-3 through S-27 was discovered after the HRA model and risk calculations were complete. Correcting the error resulted in an increase of Diesel PM emissions of less than 0.3%. Due to the risk values being rounded to 2 significant figures, this minor increase in emissions was not enough to affect any of the source or project risk values presented in this section.*

Table 12A. Individual New Source HRA Results

Source ID	Max Resident Cancer Risk (in a million)	Max Worker Cancer Risk (in a million)
S-1	0.030	0.19
S-2	0.013	0.018
S-3	0.098	0.13
S-4	0.095	0.12
S-5	0.092	0.11
S-6	0.091	0.11
S-7	0.088	0.11
S-8	0.086	0.10
S-9	0.078	0.10
S-10	0.064	0.079
S-11	0.057	0.074
S-12	0.042	0.064
S-13	0.036	0.060
S-14	0.033	0.059
S-15	0.030	0.057
S-16	0.029	0.055
S-17	0.087	0.11
S-18	0.087	0.11
S-19	0.087	0.11
S-20	0.088	0.11
S-21	0.088	0.11
S-22	0.086	0.11
S-23	0.087	0.11
S-24	0.086	0.097
S-25	0.086	0.068
S-26	0.086	0.063
S-27	0.085	0.053

Table 12B. Project HRA Results

Receptor	Cancer Risk[1]	Chronic Hazard Index	Acute Hazard Index
Resident	1.9 in a million	0.00054	N/A
Worker	2.5 in a million	0.0020	N/A
PMI (1-hour)	N/A	N/A	0.045

Notes:

1. *As each cancer risk presented in Table 12A is rounded to 2 significant figures, summing risk by individual sources may not necessarily equal the same project total as presented in Table 12B.*

For the project, the HRA analysis estimated the health risk resulting from TAC emissions from the non-emergency operation of the standby emergency diesel generator engines at this facility. Results from the HRA indicate that the maximum project cancer risk (worker) is **2.5 in a million**, the project maximum chronic hazard index (worker) is **0.0020**, and the project maximum acute hazard index (PMI) is **0.045**. In accordance with the District's Regulation 2-5-301, these sources do not require TBACT because each estimated source

cancer risk and hazard indices is less than 1.0 in a million and 0.20, respectively. This project is located in an overburdened community (OBC), as defined by Regulation 2-1-243, and this application was deemed complete after July 1, 2022 (Regulation 2-1-409); therefore, the project must comply with the project cancer risk limit of 6 in a million. Since the estimated project cancer risk does not exceed 6 in a million and project hazard indices do not exceed 1.0, this project complies with the District's Regulation 2-5-302 project risk requirements.

Compliance with Regulation 2-5 is satisfied 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 means by which facilities can 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 (PTE) of criteria pollutants was calculated in accordance with District Policy and presented previously in Table 9; all emissions are below 100 tons per year per pollutant threshold for a major facility.

The PTE of Hazardous Air Pollutants (HAP) for the facility is summarized in Table 13 below.

Table 13. Potential to Emit of Hazardous Air Pollutants for Facility ID 25045

HAP	Current (ton/year)	App #31312 Increase (ton/year)	App #707247 Increase (ton/year)	New Total (ton/year)
Diesel PM	0.000	0.077	0.228	0.306
Ammonia	0.000	0.156	0.493	0.649
Total HAP	**0.000**	**0.233**	**0.721**	**0.954**

As shown above, 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 (Section 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 6 - Particulate Matter, Rule 1 - General Requirements

Ringelmann No. 1 Limitation (Section 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.

Since the engines are expected to emit low amount of PM_{10}, they are expected to comply with *Regulation 6-1-301* pending a regular inspection.

Opacity Limitation (Section 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 Air District regulations.

Since the engines are expected to emit low amounts of PM_{10}, they are 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.

Since the engines are expected to emit low amounts of PM_{10}, they are 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.

The outlet grain loading (in grains/dscf) of particulate matter from each engine was calculated using the engines' PM emission factor and the manufacturer's specified rated power output, exhaust flow rate, and exhaust temperature. The results are summarized in the table below.

Table 14. Engine Data & Particulate Matter Emission Rates per Engine

Source ID	PM Emission Factor (g/bhp-hr)	Rated Power Output (bhp)	Exhaust Flow Rate (acfm)	Exhaust Temperature (°F)	Outlet Grain Loading (grains/dscf)
S-1	0.0895	280	1,229	948	**0.014**
S-2	0.0078	900	4,784	994.3	**0.001**
S-3 through S-27	0.02	3,634	18,497	853	**0.003**

As shown above, each proposed engines' outlet grain loading is much 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

The proposed engines are subject to the following sections of Regulation 9, Rule 1 and will comply with all sections by burning Ultra Low Sulfur Diesel with a maximum 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 in excess of 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 in excess of 300 ppm (dry).

Fuel Burning (Liquid and Solid Fuels) (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)

The engines are 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 Conditions for S-1 through S-27 will include an annual reliability-related operating limit of 50 hours/year, which complies with this standard.

Monitoring and Records (Section 9-8-500)

The engines are subject to the reporting requirements of Sections 502 and 530.

Permit Conditions for S-1 through S-27 will include reporting requirements that meet this standard.

Regulation 10 – Standards of Performance for New Stationary Sources

New Source Performance Standards (NSPS)

Any new or modified source is required to comply with *Regulation 10, Standard of Performance for New Stationary Sources* – which is Title 40, Part 60 of the Code of Federal Regulation incorporated by reference. According to §60.4200(a)(1), the provisions of 40 CFR Part 60 Subpart IIII *Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE)* are applicable to (1) manufacturers of stationary CI ICEs with a displacement of less than 30 L/cylinder where the model year is 2007 or later for non-fire pump engines, and (2) owners and operators of stationary CI ICE that commence construction after July 11, 2005 and are manufactured after April 1, 2006 (and are not fire pump engines).

§60.4205 specifies the emission standards that must be met by owners/operators of stationary CI ICE emergency engines. Per §60.4205(b), owners/operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 L/cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202 for all pollutants (for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE).

§60.4202 specifies emergency engine emissions standards for manufacturers of stationary CI ICEs. Per §60.4202 (a)(2), manufacturers must certify their 2007 model year and later CI ICEs with a maximum engine power greater than 50 HP (37 kW), less than or equal to 3,000 HP (2,237 kW), and a displacement of less than 10 liters per cylinder (that are not fire pump engines) to the applicable Tier 2 or Tier 3 emission standards as described in 40 CFR, Part 1039, Appendix I for all pollutants. Per §60.4202(b)(2), manufacturers must certify their 2011 model year and later CI ICEs with a maximum engine power greater than 3,000 HP (2,237 kW) and displacement of less than 10 liters per cylinder (that are not fire pump engines) to the Tier 2 emission standards as described in in 40 CFR Part 1039, Appendix I for all pollutants. The proposed engines satisfy the applicable Tier 2 and Tier 3 emission standards contained in 40 CFR Part 1039, Appendix I, Tables 2 and 3, as summarized below.

Table 15. Engine Emission Rates vs. 40 CFR 1039, Appendix I Emission Standards

Pollutant	*S-1*		*S-2 through S-27*		
	Tier 3 Emission Std. 130 ≤ kW ≤ 560 (g/kW-hr)	S-1 EPA Certified Emission Rate (g/kW-hr)	**Tier 2 Emission Std. kW > 560 (g/kW-hr)**	S-2 EPA Certified Emission Rate (g/kW-hr)	S-3 through S-27 EPA Certified Emission Rate (g/kW-hr)
NOx + NMHC	**4.0**	3.6	**6.4**	5.2	5.3
CO	**3.5**	1.2	**3.5**	0.8	0.9
PM	**0.20**	0.12	**0.20**	0.07	0.12

By using engines in compliance with the above emissions standards, the owner/operator of the proposed emergency stationary CI ICEs therefore complies with the applicable emissions standards specified in §60.4205. Per §60.4206, the owner/operator is expected to operate and maintain the engines in such a manner that they continue to achieve the applicable emissions standards for the entire life of the equipment.

§60.4207 specifies fuel requirements that must be met for owners/operators of a stationary CI ICE engine subject to Subpart IIII. Effective October 1, 2010, diesel-fired stationary CI ICEs with a displacement less than 30 L/cylinder must use diesel fuel that meets the requirements of 40 CFR 1090.305, which specifies the following requirements:

- A maximum sulfur content of 15 ppm; and
- Either (1) a minimum cetane index of 40, or (2) a maximum aromatic content of 35% by volume.

The owner/operator is expected to comply with this requirement because CARB only allows the use of ULSD as fuel for stationary engines in California.

§60.4209 specifies the monitoring requirements for owner/operators of stationary CI ICEs: emergency engines not meeting emission standards must be equipped with a non-resettable hour meter prior to startup. In addition, monitoring requirements of §60.4211 must be met (see next subsection, below).

S-1 through S-27 meet the applicable standards applicable to emergency engines and will be equipped with a non-resettable hour meter prior to startup of the engines (even though they are not specifically required to do so per this section).

§60.4211 requires (a) owners/operators operate and maintain the engine and control device according to manufacturer's emission-related written instructions, change only those emission-related settings that are permitted by the manufacturer, and meet the requirements of 40 CFR 1068 if applicable. In addition, §60.4211(c) requires owner/operators of 2007 model year and later CI ICEs complying with §60.4205(b) standards to purchase a certified engine, installed and configured according to the manufacturer's emission-related

specifications. Lastly, §60.4211(f) specifies emergency engine operation for non-emergency purposes are limited to 50 hours per year (up to 100 hours per year for certain situations) and emergency use is unlimited.

The owner/operator is expected to comply with the requirements outlined in §60.4211. The proposed engines are part of certified EPA Engine Families TPKXL07.0PW1, TCPXL18.1NYS, TCPXL78.1NZS, and VCPXL78.1NZS. Due to the CARB ATCM limiting non-emergency use to 50 hours per year, the 100 hours per year provision does not apply.

§60.4214 specifies notification, reporting and recordkeeping requirements for owners/operators of CI ICEs.

The proposed engines S-18 through S-24 are not subject to initial notification requirements of §60.4214(b) because they are emergency engines and meet the standards applicable to non-emergency engines in the applicable model year.

§60.4218 specifies the general provisions in 40 CFR 60.1 to 60.19 applicable.

The owner/operator is expected to comply with these provisions.

Regulation 11 – National Emission Standards for Hazardous Air Pollutants

National Emission Standards for Hazardous Air Pollutants (NESHAP)

There are no subparts under 40 CFR Part 61 that apply to ICEs. Therefore, this regulation does not apply to any of the proposed sources in this application.

40 CFR Part 63 Subpart ZZZZ establishes NESHAPs for Stationary Reciprocating Internal Combustion Engines (RICEs). Both area and major sources of RICEs are subject to Subpart ZZZZ. The facility constitutes an area source of HAPs because the potential to emit any single/combined HAP is below the 10/25 tons per year threshold for major sources. The proposed engines S-1 through S-27 are new stationary RICE CIs at an area source subject to (and compliant with) regulations under 40 CFR Part 60 Subpart IIII. Therefore, per 40 CFR 63.6590(c)(1), no further requirements apply for the proposed engines under Subpart ZZZZ.

California State Regulations

The Air District 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.

Airborne Toxic Control Measure (ATCM) for Emergency Standby Diesel-Fueled CI Engines (>50 bhp)

Subsection 93115.6(a)(3)(A)(1)(a) sets forth Emission Standards for new stationary emergency standby diesel fueled compression ignition engines with maximum engine power greater than 50 HP.

S-1 through S-27 are subject to and meet the requirements of this section of the ATCM as shown in the table below:

Table 16. Engine Emission Rates vs. ATCM Emission Standards

Pollutant	*S-1*		*S-2 through S-27*		
	ATCM Emission Std. 175 ≤ HP < 300 (g/bhp-hr)	S-1 EPA Certified Emission Rate (g/bhp-hr)	**ATCM Emission Std. HP > 750 (g/bhp-hr)**	S-2 EPA Certified Emission Rate (g/bhp-hr)	S-3 through S-27 EPA Certified Emission Rate (g/bhp-hr)
NOx + NMHC	**3.0**	2.68	**4.8**	3.88	3.95
CO	**3.7**	0.895	**2.6**	0.597	0.67
PM	**0.15**	0.0895	**0.15**	0.0522	0.0895

Subsection 93115.6(a)(3)(A)(1)(b) requires that new stationary emergency standby diesel-fueled engines (>50 bhp) be certified to the emission standards as specified in *40 CFR, Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

As discussed in the NSPS section of this evaluation, the proposed engines are certified to their applicable emissions standards as specified in CFR Part 60 Subpart IIII; therefore, S-1 through S-27 comply with this section of the ATCM.

Subsection 93115.6(a)(3)(A)(1)(c) limits the non-emergency operation of 50 hours/year for maintenance and testing.

Permit Conditions for S-1 through S-27 will limit non-emergency operation to 50 hours/year/engine and as such, they will comply with this section of the ATCM.

PUBLIC COMMENTS RECEIVED

Standard Air District permitting procedures stipulate that all complete applications undergo a 10-Day Public Participation Period (PPP). During this time, members of the public may submit comments on application materials. During the 10-day PPP for this application, no comments were received on the application materials.

PERMIT CONDITIONS

Permit Condition #100072 – Applies to S-1 through S-27

1. The owner or operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, state or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating while mitigating emergency conditions or while emission testing to show compliance with District, state or Federal emission limits is not limited. [Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]

2. 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]

3. 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]

4. At School and Near-School Operation: If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply: The owner or operator shall not operate each stationary emergency standby diesel-fueled engine for non-emergency use, including maintenance and testing, during the following periods:
   a. Whenever there is a school sponsored activity (if the engine is located on school grounds)
   b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session.

"School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in a private home(s). "School" or "School Grounds" includes any building or structure, playground, athletic field, or other areas of school property but does not include unimproved school property.
[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]

Permit Condition #100073 – Applies to S-1 through S-27

The owner/operator shall not exceed the following limits per year per engine for reliability-related activities:

50 Hours of Diesel fuel (Diesel fuel)

[Basis: Cumulative Increase; Regulation 2-5; Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]

Permit Condition #100102 – Applies to S-2

1. The owner/operator shall abate the particulate emissions from the emergency diesel engine by the Diesel Oxidation Catalyst/Particulate Filter at all times the engine is in operation.
   [Basis: Toxics, "ATCM for Stationary Compression Ignition Engines" Section 93115.6(a)(3) or 93115.6(b)(3), title 17, CA Code of Regulations]

2. The owner/operator shall comply with requirements for CARB Executive Order DE-07-001-11. [Basis: CARB Executive Order DE-07-001-11, "ATCM for Stationary Compression Ignition Engines" Section 93115.13(f), title 17, CA Code of Regulations, Toxics, Sections 2700 through 2711 of title 13, CA Code of Regulations]

Permit Condition #100772 – Applies to S-3 through S-27

Large Tier 2 Engines from Applications 31312 & 707247 (S-3 through S-27). Each is equipped with add-on SCR and DPF/DOC to meet Tier 4 emissions standards; ST for NOx/CO, POC, and PM

1. The owner/operator shall ensure each engine is abated at all times of operation by an approved Selective Catalytic Reduction (SCR) System and Diesel Particulate Filter (DPF) equipped with a backpressure monitor or other approved Diesel Exhaust Particulate Matter Abatement System. The engine, SCR System, and DPF with backpressure monitor, or other approved system shall be installed, maintained, and

operated in accordance with the manufacturer specifications and/or best modern practices.
[Basis: Cumulative Increase, Title 17 CCR Section 93115.6(a)(3), 40 CFR 1039.101, BACT, and Regulation 2, Rule 5]

2. The owner/operator shall take all corrective actions recommended by the manufacturer in response to backpressure monitor notifications.
[Basis: Cumulative Increase, Title 17 CCR Section 93115.6(a)(3), 40 CFR 1039.101, BACT]

3. The owner/operator shall ensure urea injection commences as soon as the SCR catalyst bed reaches the minimum operating temperature as specified by the manufacturer.
[Basis: Cumulative Increase, Title 17 CCR Section 93115.6(a)(3), 40 CFR 1039.101, BACT]

4. The owner/operator shall ensure engine emissions do not exceed an ammonia (NH3) slip of 10 ppmv, dry @ 15% O2 from the SCR system. If deemed necessary to demonstrate compliance with Regulation 2, Rule 5, the Air District may require a source test to determine compliance with this emission limit.
[Basis: Regulation 2, Rule 5]

5. The owner/operator shall ensure engine emissions do not exceed the following limits:

   NOx: 0.50 g/bhp-hour
   CO: 0.76 g/bhp-hour
   POC: 0.14 g/bhp-hour
   PM: 0.02 g/bhp-hour

   [Basis: BACT, Cumulative Increase, and Regulation 2, Rule 5]

6. To demonstrate compliance with Part 5, the owner/operator shall conduct an initial Air District-approved source test on a minimum of one third of the identical engines started up in a calendar year by October 31st of the following calendar year and once every three years thereafter at the normal or expected load during emergency operation using Air District approved source test methods. The subsequent periodic source testing shall be conducted on a minimum of one third of the identical engines once every three years. The owner/operator shall document urea usage (gallons per minute) and average kW during all tests, preferably as digital records. The owner/operator shall submit the source test results to the Air District's Source Test Section no later than 60 days after source test completion.

   During each subsequent triennial source test, the owner/operator shall test a different one third of the identical engine group started up in a given calendar year. After every engine in an identical group has been tested, the next triennial test shall be performed on the first one third set of engines tested in the identical group. Identical engines must

be of the same make, model, model year, engine family, and must be abated by a DPF, DOC, and SCR.

[Basis: BACT and Cumulative Increase]

7. The owner/operator shall comply with all applicable testing, sampling port location and safe access requirements as specified in Volume IV of the Air District's Manual of Procedures. The owner/operator shall notify the Air District's Source Test Section, in writing, of the source test protocols, sampling port locations, layout, access and projected test dates at least 30 days prior to testing. The following test methods shall be used for each pollutant:

NOx: EPA Method 7E or Air District-approved equivalent
CO: EPA Method 10 or Air District-approved equivalent
POC: EPA Method 25A and EPA Method 18 or Air District-approved equivalent
PM (filterable): EPA Method 5 or Air District-approved equivalent

[Basis: Regulation 2-1-403]

8. To determine compliance with the above parts, the owner/operator shall maintain the following records in an Air District-approved log and shall make these records available to Air District staff upon request. All records shall be retained 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 Synthetic Minor Operating Permit). These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable Air District or state regulations.

a. Source Test Notifications.
b. All source test reports.
c. Engine serial number and source number for each source test.
d. Engine load percentage.
e. Engine, SCR, and DPF maintenance records.
f. SCR system owner's manual or manufacturer's specifications.
g. DPF owner's manual or manufacturer's specifications.
h. All backpressure monitor notifications and corrective actions.
i. SCR urea injection rate (gpm).

[Basis: BACT, Cumulative Increase, Recordkeeping]

Permit Condition #100831 – Applies to S-1 through S-27

1. If any of the engines approved in Applications 31312 or 707247 (S-1 through S-27) will end up with a model year that differs from what is listed on the engine's Authority to Construct (ATC), the owner/operator shall notify the Air District's Engineering

Division about the change in writing within 14 days of the date that the new model year is determined. The written notification shall include the Source ID and model year of the affected engine(s), and the following documents: EPA Certification(s) and most recent manufacturer specification sheets. [Basis: Regulation 2-1-403]

2. Notwithstanding the 14-day notification timeline set forth in Part 1 of this condition, the owner/operator shall submit the written notification to the Air District's Engineering Division at least 30 days prior to the affected engine's expected startup date.

3. After the Permits to Operate are issued for all twenty-seven (27) engines from Applications 31312 and 707247, this permit condition will be obsolete and can be removed.

End of Conditions

RECOMMENDATION

The District reviewed the material contained in the permit application for the proposed project and 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 was to issue an Authority to Construct for the equipment listed below. However, the proposed sources will be located within an Overburdened Community and require an HRA, which triggers the public notification requirements of 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 for the following sources:

S-1:	**Emergency Standby Diesel Engine-Genset (Security)** **Make: Caterpillar; Model: C7.1, Model Year: 2026** **280 bhp, 1.85 MMBtu/hr**
S-2:	**Emergency Standby Diesel Engine-Genset (House)** **Make: Caterpillar; Model: C18 Model Year: 2026** **900 bhp, 5.85 MMBtu/hr**
Abated by	
A-2:	Diesel Particulate Filter and Oxidation Catalyst (DPF/DOC): Make: Rypos, Model: HDPF/C

S-3 through S-6:	**Emergency Standby Diesel Engine-Genset (Critical-Gen) Make: Caterpillar; Model: 3516C, Model Year: 2026 3,634 bhp, 24.02 MMBtu/hr**
	Abated by	
A-31, 41, 51, 61	Diesel Particulate Filter and Oxidation Catalyst (DPF/DOC) Make: Rypos, Model: HDPF/C
	And	
A-32, 42, 52, 62	Selective Catalytic Reduction (SCR) Make: Miratech, Model: AT-IV
S-7 & S-8:	**Emergency Standby Diesel Engine-Genset (Critical-Gen) Make: Caterpillar; Model: 3516C, Model Year: 2027+ 3,634 bhp, 24.02 MMBtu/hr**
	Abated by	
A-71 & A-81:	Diesel Particulate Filter and Oxidation Catalyst (DPF/DOC) Make: Rypos, Model: HDPF/C
	And	
A-72 & A-82:	Selective Catalytic Reduction (SCR) Make: Miratech, Model: AT-IV
S-9 through S-27:	**Emergency Standby Diesel Engine-Genset (Critical-Gen) Make: Caterpillar; Model: 3516C, Model Year: 2027+ 3,634 bhp, 24.02 MMBtu/hr**
	Abated by	
A-91, 101, 111, 121, 131, 141, 151, 161, 171, 181, 191, 201, 211, 221, 231, 241, 251, 261, 271	Diesel Particulate Filter and Oxidation Catalyst (DPF/DOC) Make: Rypos, Model: HDPF/C
	And	
A-92, 102, 112, 122, 132, 142, 152, 162, 172, 182, 192, 202, 212, 222, 232, 242, 252, 262, 272	Selective Catalytic Reduction (SCR) Make: Miratech, Model: AT-IV

By: Cameron Fee Date: January 22, 2026

Cameron Fee
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