ENGINEERING EVALUATION
AUTHORITY TO CONSTRUCT

Facility Name:	RSF Old Course Rd. LLC
Equipment Type:	[34H] California Certified Emergency Engine
Application #:	APCD2024-APP-008487
ID#:	APCD2024-SITE-04672
Equipment/Facility Address:	16202 Sunny Summit Dr. San Diego, CA 92127
Facility Contact:	Ben Dolan (App Preparer/Site Contact) (346) 406-7851 bdolan@belmontvillage.com

Permit Engineer:

X

Austin Stein
Asst. Air Pollution Control Engineer

Senior Engineer Signature:

X

Joseph N. Herzig
Senior Air Pollution Control Engineer

1.0 Background

1.1 Type of Application: New installation of a diesel emergency engine.
1.2 Permit History: This is the initial application for this equipment.
1.3 Facility Description: This is a residential care facility for the elderly. This facility does not have any active permits with APCD. No other applications are open at this site.
1.4 Other Background Info: There are no hearing board actions, permit denials, legal settlements, NOV, or nuisance complaints. The site is not a Title V facility.

2.0 Process Description

2.1 Equipment Description.
Emergency Diesel Engine Generator
Manufacturer: Cummins;
Model: QSX15-G9;

S/N: TBD;
Horsepower (maximum rated): 755 BHP;
Model Year: 2021;
EPA Certification Tier: 2
Equipped with aftermarket CARB Level 3 verified, Johnson Matthey CRT - Diesel Particulate Filter (DPF);
Engine Family (EPA): MCEXL015.AAJ;
Driving a 500 kW emergency-use standby generator;
8-inch diameter vertical exhaust with flapper raincap; exhausting 9.75 ft. above ground.

2.2 Process Description.
This is a diesel-powered generator to be used in situations of emergency and for limited operations for maintenance and testing purposes for the RSF Old Course Rd. LLC operation.

2.3 Emissions Controls.
This is a Tier 2 certified diesel engine. It is equipped with an aftermarket, CARB level 3 verified Johnson Matthey DPF. This DPF is guaranteed to 85% reduction of PM by CARB. It also includes a Diesel Oxidation Catalyst (DOC) that is manufacturer guaranteed to reduce 80% of CO and 70% of NMHC. These control efficiencies will be applied and reflected in all emissions calculations.

2.4 Attachments.
Generator specification sheet.

3.0 Emissions

3.1 Emissions estimate summary. Estimated emissions from the process are shown below.

Table 1: Estimated PTE for criteria pollutants

	Emission Factor	Hourly Emissions	Daily Emissions	Annual Emissions	
Compound	g/bhp-hr	lbs/hr	lbs/day	tons/year	lbs/yr
NOx	4.21	7.00	168.07	0.175	350.16
CO	0.09	0.15	3.58	0.004	7.45
NMHC	0.02	0.04	0.89	0.001	1.86
PM	0.01	0.02	0.58	0.001	1.21
SOx	NA	0.00728	0.1746	0.00018	0.364

3.2 Estimated Emissions Assumptions

- Table 1 evaluates the emission unit at 24 hours per day and a total of 50 hours per year, assuming full load operations
- Estimated emissions are calculated for maintenance and testing operations. Emergency use is not counted towards operation limits.
- 15 ppmw sulfur fuel
- Emission factors were EPA certified emission factors; Standard toxics emission factors for diesel engines.

- Expected actual emissions same as PTE.
- Other standard assumptions as stated in calculation sheets

3.3 Emissions Calculations.

Calculations were performed using the attached spreadsheets using standard calculation methods.

3.4 Attachments.

Emission Calculations.

4.0 Applicable Rules

4.1 District Prohibitory Rules

Emergency diesel engines at non-major sources are subject to the following District prohibitory rules: 50, 51, 53, 62 and 69.4.1. The proposed engine is expected to comply with all applicable requirements as shown in the table on the following page with standard permit conditions for this equipment type.

Table 2: Prohibitory Rule Discussion				
Applicable Section	**Requirement**	**Engine Complies?**	**Explanation**	**Condition**
Rule 50	Visible Emissions not to exceed 20% opacity or Ringelmann 1 for more than 3 minutes in a 60 minute period	Yes	Compliance with this requirement is achieved through the use of an EPA certified engine, and permit conditions will specify this requirement.	C28413
Rule 51	Cannot cause or contribute to a public nuisance	Yes	Due to the intermittent operation of an emergency engine that meets all emission requirements, it is anticipated that this will not cause a public nuisance. Permit conditions will prohibit this engine from causing a public nuisance.	C28414
Rule 53	Emissions of sulfur compounds calculated as SO2 on a dry basis shall not exceed 0.05 % by volume on a dry basis.	Yes	Permit conditions will require use of CARB diesel fuel (15 ppm Sulfur by weight), which will ensure compliance with this requirement.	C28412
Rule 62	Sulfur content of liquid fuel shall not exceed 0.5 % sulfur by weight.	Yes	Permit conditions will require use of CARB diesel fuel (15 ppm Sulfur by weight), which will ensure compliance with this requirement.	C28412
Rule 69.4.1				
69.4.1(d)(1)(ii)(E)	Emission standards for NOx and CO emissions. For a new or replacement certified diesel engine, NOx emissions shall not exceed: 3.5 g/bhp-hr if 50≤bhp<100; 3.0 g/bhp-hr if 100≤bhp<175; 3.0 g/bhp-hr if 175≤bhp<750; 4.8 g/bhp-hr if bhp≥750. For a new or replacement certified diesel engine, CO emissions shall not exceed: 3.7 g/bhp-hr if 50≤bhp<100; 3.7 g/bhp-hr if	Yes	Use of an EPA certified tier 3 engine (tier 2 for engines with a rated power in excess of 750 bhp) ensures that NOx and CO emissions comply with this requirement. This engine is a tier 2, >750 BHP with aftermarket controls, therefore it complies with this requirement.	NA

	100≤bhp<175; 2.6 g/bhp-hr if 175≤bhp<750; 2.6 g/bhp-hr if bhp≥750.			
69.4.1(d)(2)	Engines operated on diesel fuel shall use only California Diesel Fuel.	Yes	Permit conditions will require use of CARB diesel fuel (15 ppm Sulfur by weight), which will ensure compliance with this requirement.	C28412
69.4.1(e)(3)	All engines must be equipped with a non-resettable totalizing fuel or hour meter which shall be replaced in accordance with subsection (g)(7) of this rule.	Yes	Permit conditions will require installation of a non-resettable hour meter and specify the requirements for replacement.	C28419
69.4.1(f)(2)	The owner or operator must conduct periodic maintenance on the engine, according to engine/control equipment manufacturer's instructions or other written procedure, at least once each calendar year.	Yes	Annual maintenance of engine according to written procedure will be required by permit conditions.	C43433
69.4.1(g)(1)	Specifies engine information that must be maintained on-site.	Yes	Manufacturer and model number, brake horsepower rating, combustion method and fuel type are contained in the permit application. Documentation of CARB diesel fuel certification and manual of recommended maintenance will be specified in permit conditions.	C45251
69.4.1(g)(2)	Requires keeping an operating log containing dates and times and purpose of each period of engine operation, cumulative operation of engine for each calendar year and maintenance records including dates maintenance is performed. Engines within 500 feet of schools must record the time of day when	Yes	Compliance with this provision is expected and this requirement is specified in permit conditions.	C45252

	the engine is operated for testing and maintenance. Specific records for internal, external, and partial external power outages is required.			
69.4.1(g)(6)	Requires records of the dates and times when fuel is being combusted and cumulative operating time if claiming a commissioning exemption.	NA	The applicant has not claimed a commissioning exemption.	NA
69.4.1(g)(7)	Requires notification to APCD within 10 calendar days of replacing an hour meter.	Yes	Compliance with this provision is expected and this requirement is specified in permit conditions.	C28419
69.4.1(g)(9)	Requires specified records to be maintained on-site for at least three years and made available to the District upon request.	Yes	Compliance with this provision is expected and this requirement is specified in permit conditions.	C43432
69.4.1(i)(1)	Requires periodic source testing to confirm compliance with applicable emission standards.	NA	This subsection does not apply to certified emergency engines.	NA

4.2 New Source Review (NSR) Rule 20.1-20.4

This application is subject to District NSR rules. At the time of filing, this facility is not considered a major stationary source, for each pollutant, as shown in the following table, and is therefore subject to District Rule 20.2. Calculation of emissions and determination of applicable requirements is performed in accordance with District Rule(s) 20.1 through 20.3.

Table 3: Classification of Major/PSD Source and Modification New Source Review (NSR) Requirements

	NOx	VOC	PM-10	PM-2.5	SOx	CO	Lead
Major Source Threshold (ton/year)	*50*	*50*	*100*	*100*	*100*	*100*	*100*
Major Source? (yes/no)	***No***	***No***	***No***	***No***	***No***	***No***	***No***
Major Modification Threshold (ton/year)	*25*	*25*	*15*	*10*	*40*	*100*	*0.6*
Major Modification at a Major Source?	***No***	***No***	***No***	***No***	***No***	***No***	***No***
Contemporaneous Calculations Performed?	**No**	**No**	**No**	**No**	**No**	**No**	**No**
Federal Major Stationary Source Threshold (ton/year) (Severe non-attainment status)	25	25	100	100	100	100	100
Federal Major Stationary Source?	**No**	**No**	**No**	**No**	**No**	**No**	**No**
Federal Major Modification Threshold (ton/year) (Severe non-attainment status)	*25*	*25*	*15*	*10*	*40*	*100*	*0.6*
Federal Major Modification?	***No***	***No***	***No***	***No***	***No***	***No***	***No***
Contemporaneous Net Calculations Performed	***No***	***No***	***No***	***No***	***No***	***No***	***No***
PSD Threshold (ton/year)	*250*	*250*	*250*	*--*	*250*	*250*	*--*
PSD Modification Threshold (ton/year)	*40*	*40*	*15*	*--*	*40*	*100*	*0.6*
PSD New or Modification?	**No**	**No**	**No**	**No**	**No**	**No**	**No**

District Rule 20.2 contains requirements for Best Available Control Technology (BACT), Air Quality Impact Assessment (AQIA), Prevention of Significant Deterioration (PSD) and public notification. Requirements of this rule apply; as shown in the table on the following page and sections 20.2(d)(1-2).

Table 4: New Source Review Discussion				
Rule/Requirement	**Requirement**	**Applicability**	**Discussion**	**Condition**
Applicability	Rule 20.2 applies to non-major stationary sources	Yes	This is a non-major stationary source, so Rule 20.2 applies.	NA
Type of application	New	Yes	NA	NA
Exemptions	No exemptions apply to this equipment	NA	NA	NA
20.2(d)(1) – BACT				
BACT - NOx	Installation of BACT is required if emissions of NOx exceed 10 lbs/day	**Triggered, see discussion below.**	The potential to emit for this pollutant is 168 lbs/day, which does exceed this trigger level, so BACT is required.	NA
BACT - VOC	Installation of BACT is required if emissions of VOC exceed 10 lbs/day	Not triggered, no permit limit	The potential to emit for this pollutant is 0.9 lbs/day, which does not exceed this trigger level, so BACT is not required.	NA
BACT - PM-10	Installation of BACT is required if emissions of PM-10 exceed 10 lbs/day	Not triggered, no permit limit	The potential to emit for this pollutant is 0.6 lbs/day, which does not exceed this trigger level, so BACT is not required.	NA
BACT - SOx	Installation of BACT is required if emissions of SOx exceed 10 lbs/day	Not triggered, no permit limit	The potential to emit for this pollutant is 0.17 lbs/day, which does not exceed this trigger level, so BACT is not required.	NA
20.2(d)(2) – AQIA				
AQIA - NOx	Required for project emission increases in excess of 25 lbs/hr, 250 lbs/day or 40 ton/yr of NOx calculated as NO2	Not Triggered	The increase in emissions of this air contaminant from this project does not exceed any of these levels, so no AQIA is required.	NA
AQIA - PM-10	Required for project emission increases in excess of 100 lbs/day or 15 ton/yr of PM-10	Not Triggered	The increase in emissions of this air contaminant from this project does not exceed any of these levels, so no AQIA is required.	NA
AQIA - SOx	Required for project emission increases in excess	Not Triggered	The increase in emissions of this air contaminant from this project does not	NA

	of 25 lbs/hr, 250 lbs/day or 40 ton/yr of SOx calculated as SO2		exceed any of these levels, so no AQIA is required.	
AQIA - CO	Required for project emission increases in excess of 100 lbs/hr, 550 lbs/day or 1000 ton/yr of CO	Not Triggered	The increase in emissions of this air contaminant from this project does not exceed any of these levels, so no AQIA is required.	NA
20.2(d)(3) - PSD	Applicable to source that may have a significant impact on a class I area	NA	Emissions from this engine do not trigger PSD requirements.	NA
20.2(d)(4) - Public Notice	Requires 30 day public notice if an AQIA was required or if increase in VOC emissions from the project exceed 250 lbs/day or 40 ton/year	NA	AQIA was not required and VOC emission increase from this project does not exceed these levels.	NA

20.2(d)(1) – BACT
The PTE for NOx for the engine is 168 lbs./day, greater than the 10 lbs./day threshold for BACT. Therefore, a BACT analysis is required.

Alternatives that were considered include natural gas and propane engines and Tier 4f engines including SCR and DPF. Gas-fueled engines are not feasible as backup power for operations that must occur if natural gas lines are damaged in the event of an emergency like an earthquake. An engine of this size would also likely require SCR for emissions control, a method which is not cost effective as described below. The cost-effectiveness evaluation did not take into account the likely short periods of operation of this engine for maintenance. In many maintenance situations, the engine is operated at low loads and for approximately 30 minutes, some of which the SCR catalyst has not reached appropriate temperature for effectively controlling emissions.

NOx Analysis:
A tier 4 engine is the lowest emitting BACT option. Cost-effectiveness has previously been evaluated under applications APCD2021-APP-006831, and APCD2021-APP-006981, comparing incremental costs of a tier 2 vs. 4 engine, the results of which are summarized below. Note that this analysis is conservative and does not take into account the likely short periods of operation of this engine for maintenance as noted above which would lower the level of emission reductions achieved.

Project	*Engine Size (bhp)*	*Capital Cost Tier 2*	*Capital Cost Tier 4*	*Annual Cost Tier 2*	*Annual Cost Tier 4*	*Annual Incremental Cost*	*Annual Emission Reduction (lb/yr)*	***Cost Effectiveness***
6831	*2346*	*$329,050*	*$603,826*	*$127,026*	*$200,228*	*$73,202*	*1,112*	***$65.82***
6981	*2937*	*$810,000*	*$1,200,000*	*$131,824*	*$195,294*	*$63,471*	*1,322*	***$48.03***

This analysis shows that a Tier 4f engine, the lowest-emitting category of diesel engines, is not cost-effective. The analysis is based on the assumption that the engine allowed to run up to 50 hours per year for maintenance and testing, the maximum NOx emissions were calculated using the emission standards for a tier 2 and tier 4 engine. Capital costs were provided by the permit applicants which were annualized and added to expected maintenance and operating costs to determine an overall annual cost. While the previous analysis was conducted for larger engines, it is still representative for this application too because the equipment is very similar aside from engine size, and NOx emissions and costs are expected to scale roughly linearly with engine size. Additionally, the cost for an add-on SCR to a tier 2 engine is expected to have a similar cost to the incremental cost of a tier 4 engine, so this analysis also demonstrates that use of an SCR would not be cost effective, in addition to being technologically infeasible because it would not function during most periods of testing and maintenance.

For this engine size, a tier 2 is the next lowest emitting option, therefore satisfies BACT for NOx.

20.2(d)(2) – AQIA
No AQIA limits were triggered by this engine, therefore no AQIA is required for this project.

4.3 Toxic New Source Review – Rule 1200
District Rule 1200 applies to any application that is part of a project which results in an emission increase of toxic air contaminants. The rule limits the increase in acute and chronic health hazard index (HHI) to no more than one from the project and limits the increase in cancer risk from the project to no more than one in one million if the engine is not equipped with Toxics BACT (T-BACT) or no more than ten in one million if the project meets T-BACT requirements. The following table contains an in-depth review of Rule 1200 requirements. If a refined HRA was required, the HRA report is attached.

Table 5: Rule 1200 Applicable Requirements and Discussion

Question	Answer	Discussion
Does the application result in an increase in toxic emissions?	Yes	The application results in an increase in toxic emissions of Diesel Particulate Matter or specific trace heavy metals and organics (as shown in emission calculations section).
Do any special exemptions apply to this equipment?	No	No exemptions apply to this equipment

Are there any other applications that are part of the project?	No	NA
What type of HRA was used?	Refined	Engine did not pass De Minimis and was sent for a refined HRA. Results attached.
Is the Project Equipped with T-BACT?	Yes	This engine is equipped with a CARB level 3 verified aftermarket Johnson Matthey DPF. This DPF is certified for this engine's EPA family number and model year and is considered T-BACT for the equipment.
Cancer Risk increase (per one million)	0.365	Project meets standard of 10 in one million.
Chronic HHI	9.82E-05≤1	Meets standard of one.
Acute HHI	0.19≤1	Meets standard of one.
Passes Rule 1200?	Yes	Maintenance and testing (non-emergency operation) must be limited by permit conditions to 50 hours per calendar year

Based on this analysis, the proposed engine complies with all applicable requirements of District Rule 1200.

4.4 AB3205

Requirements in the California Health and Safety Code in sections 42301.6 through 42301.9 (a.k.a. "AB3205 requirements") specify that prior to issuing an authority to construct for sources located within 1000 feet of a K-12 school, a 30-day public notification process must be conducted.

This project is located within 1000 feet of a school (Maranatha Christian Schools), so public notice is required for this section. Del Sur Elementary is within a quarter mile of the equipment as well, so a notice is required for that school as well. A copy of the public notice is attached to the file and when the notice is issued, this evaluation and relevant attachments will be made available on the District's website for review. If any comments are received, they will be reviewed, considered and responded to prior to taking action on the permit including revising any requirements as necessary in response to comments received.

4.5 State and Federal Regulations.
This engine is subject to both the State Air Toxic Control Measure for Stationary Engines (Stationary ATCM) and federal EPA issued National Emission Standards for Hazardous Air Pollutants (NESHAPs) and New Source Performance Standards (NSPS).

Applicable requirements of the Stationary ATCM include purchasing an engine certified to EPA standards and meeting specified emission standards of the rule, installing an hour meter, conducting maintenance according to a written plan, restrictions on operating the engine for

purposes other than emergency use and limited (50 hours/year) use for maintenance and testing, and maintaining records to substantiate compliance with these requirements. This engine is expected to comply with all these requirements as described in the detailed analysis shown in the table following the discussion of NESHAP/NSPS requirements.

The NESHAP (subpart ZZZZ) requires that all new emergency engines comply with the rule by complying with the NSPS (subpart IIII). Applicable requirements of the NSPS include purchasing a certified engine, operating it as directed by the manufacturer, and maintaining records to substantiate compliance. These requirements closely mirror the ATCM requirements, except that the NSPS is somewhat less stringent regarding allowable PM emission rate and contains some allowance for other types of operation not allowed by the ATCM. This means the more stringent ATCM requirements apply. A detailed analysis of NESHAP and NSPS requirements is shown in the following table.

Table 6a: State and Federal Requirement Discussion (Stationary ATCM)				
Applicable Section	**Requirement**	**Engine Complies/Expected to Comply?**	**Explanation**	**Condition**
Stationary ATCM				
93115.3	There are no exemptions that apply to this engine	NA	This engine is not one of the engines exempted from any applicable requirements	NA
93115.4	Definitions. Permit conditions ensure that the engine only operates in a manner allowed for engines designated as "Emergency Standby"	Yes	Permit conditions require that the engine operate only as an emergency engine	C40239
93115.5	Requires the use of CARB diesel as fuel.	Yes	Permit conditions will require use of CARB diesel fuel (15 ppm Sulfur by weight), which will ensure compliance with this requirement.	C28412
93115.6(a)(1)	Prohibits non-emergency operation of an emergency engine between 7:30 AM and 3:30 PM during school days if within 500 feet of school and during all school sponsored activities if located on school grounds	Yes	This engine is equipped with a DPF which lowers the engine's PM-10 emission level to <0.015 g/bhp-hr, therefore it is exempt from this rule.	N/A
93115.6(a)(2)	Allows for engine to be started 30 minutes prior to rotating outage	Yes	Permit conditions specify this requirement.	C28560
93115.6(a)(3)(A)(1)(b)	Requires that all engines used for emergency purposes be certified to at least tier 3 standards (tier 2 for engines with a rated power in excess of 750 bhp) and have Diesel PM emissions less than 0.15 g/bhp-hr	Yes	Use of an EPA certified tier 3 engine (tier 2 for engines with a rated power in excess of 750 bhp) with PM emission below this level satisfies this requirement. This is a tier 2 >750 BHP engine with an aftermarket DPF, therefore complies.	NA

93115.6(a)(3)(A)(1)(c)	Restricts maintenance and testing operation to no more than 50 hours per calendar year	Yes	Permit conditions specify this requirement.	C28643
93115.6(c)	Does not allow emergency standby engines to operate as part of "demand response programs" unless additional requirements are met	Yes	Permit conditions specify this requirement.	C40907
93115.10(a)-(b)	Requires that specified information is submitted to the District as part of application package	Yes	The submitted application contained all of the required contact/location information, engine data, and emission information	NA
93115.10(d)	Requires installation of a non-resettable hour meter and for engines with DPFs, a backpressure monitor that alerts the operator when the backpressure limit of the engine is approached	Yes	Permit conditions require the installation and use of a non-resettable hour meter. Permit conditions require installation and use of a backpressure monitor between the engine and DPF.	C40721, C28419; backpressure limit (C41044) C28419
93115.10(f)	Specifies that the owner or operator must keep records and prepare a monthly summary of hours of operation and purpose (emergency, maintenance and testing, emission testing, start-up testing, other, demand response) of each period of operation	Yes	Permit conditions require that these records be kept and the summary updated monthly	C45252
93115.10(f)	Requires records of CARB diesel fuel certification	Yes	Permit conditions require that documentation of the CARB diesel certification for all fuel used be maintained	C43434
93115.10(f)	States that records must be kept on-site for at least 24 months and off-site for an additional 12 months (total 36 months)	Yes	Compliance with this provision is expected and this requirement is specified in permit conditions.	C43432

93115.13(a)	Allows the use of certification data or other emission test data to demonstrate compliance with emission limits	Yes	The manufacturer's engine rating specific emission data was used to determine compliance and for emission calculations	NA
93115.13(f)	For engines equipped with DPFs, allows the use of an engine certified to a PM-10 emission level of no more than 0.15 g/bhp-hr and a verified DPF in lieu of source testing (or other alternative means as listed)	NA	The engine is a certified Tier 2 engine that uses a CARB certified level 2 aftermarket DPF; therefore, ensuring compliance.	NA

Table 6a: State and Federal Requirement Discussion (Stationary ATCM)

Applicable Section	Requirement	Engine Complies/Expected to Comply?	Explanation	Condition
NESHAP ZZZZ				
40 CFR 63.6590(b)-(c)	Requires that new emergency engines comply with the NESHAP by complying with the applicable NSPS	Yes	See NSPS section below.	NA
NSPS IIII				
40 CFR 60.4205	Requires that engines meet emission limits equivalent to tier 3 levels (tier 2 for engines 750 bhp or higher)	Yes	Use of an EPA certified tier 3 engine (tier 2 for engines with a rated power in excess of 750 bhp) with PM emission below this level satisfies this requirement. This is a tier 2 >750 BHP with an aftermarket DPF engine, therefore complies.	NA
40 CFR 60.4207	Sets maximum fuel sulfur limits for fuel equivalent to CARB diesel requirements	Yes	Permit conditions will require use of CARB diesel fuel (15 ppm Sulfur by weight), which will ensure compliance with this requirement.	C28412

40 CFR 60.4209	Requires installation of a non-resettable hour meter	Yes	Permit conditions require the installation and use of a non-resettable hour meter.	C28419
40 CFR 60.4211(a)	Requires that the engine be operated according to manufacturer's emission related instructions and that no changes are made to emission related settings unless allowed by manufacturer	Yes	Permit conditions specify this requirement.	C43433
40 CFR 60.4211(c)	Requires that the engine be certified under EPA regulations	Yes	Use of an EPA certified tier 3 engine (tier 2 for engines with a rated power in excess of 750 bhp) with PM emission below this level satisfies this requirement. This is a tier 2 >750 BHP with an aftermarket DPF engine, therefore complies.	NA
40 CFR 60.4211(e)	Restricts operation of emergency engines for non-emergency purposes	Yes	Compliance ensured by permit conditions for ATCM limiting operation for maintenance and testing to no more than 50 hours per calendar year and restricting non-emergency operation for only those uses allowed by the permit (maintenance and testing). ATCM requirements more stringent than NSPS.	C40239, C40907, C28643
40 CFR 60.4214(b)	Requires records of operation to show that engine is operated as an emergency engine	Yes	Compliance is expected and specified in permit conditions.	C45252
40 CFR 60.4214(c)	For engines with DPFs, requires records of corrective actions taken when the high backpressure limit is approached	NA	The engine is a certified Tier 2 engine that uses a CARB certified aftermarket DPF. The engine is equipped with a backpressure monitor to ensure proper operation of the DPF which fulfills this requirement. Permit conditions specify following manufacturer's instructions	43433

			which ensures compliance with this requirement.	
40 CFR 60.7(f)	Requires that all records be maintained for at least 2 years	Yes	Compliance with this provision is expected and this requirement is specified in permit conditions.	C43432

4.6 Title V.

This is not a Title V facility therefore this requirement does not apply.

5.0 Recommendations

This equipment is expected to comply with all rules and regulations, and therefore it is recommended *(pending completion of the AB3205 noticing and comment process)* that an authority to construct be issued with the following conditions.

6.0 Recommended Conditions

Condition set APCD2020-CON-001716 with a 50 hour/year limit for non-emergency/maintenance and testing and 41" maximum backpressure condition.

All relevant attachments are uploaded to BCMS under the corresponding application number.

Rule 1200 Health Risk Assessment

Facility Name:	RSF Old Course Rd, LLC
Facility ID:	APCD2024-SITE-04672
Application:	APCD2024-APP-008487
Project Engineer:	Austin Stein
Modeler:	Bill Reeve
Toxics Risk Analyst:	Maria Galvez
Date Submitted to Toxics:	3/04/2025
Date Completed by Toxics:	3/24/2025
HRA Tools Used:	Lakes-AERMOD (Version 24142)/HARP (v22118)

The following estimated risks are valid only for the input data provided by the Project Engineer.

Estimated worker risk does not exceed the residential risk. Therefore, only residential risk is presented in the following results.

Estimated Risk Levels:

Maximum Individual Cancer Risk (Resident)	0.365 in one million
Chronic Noncancer Health Hazard Index (Resident)	= 9.82E-05
8-Hour Noncancer Health Hazard Index (Worker)	= NA*
Maximum Acute Health Hazard Index	= 0.19

*8-Hour Non-Cancer Health Hazard Index is only applicable when calculating worker risk

The proposed application is for a stationary diesel emergency engine. The ARB Air Toxics Control Measure (ATCM) limits non-emergency operations to 50 hours per year.

Input Data Provided by Project Engineer:

Type of Source: Emergency Diesel IC Engine.
Controls Description: Aftermarket DPF

Worst-Case TAC Emissions Increase:

Toxic Air Contaminant	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lb/yr)
DIESEL PARTICULATE		1.21E+00
ACETALDEHYDE	2.69E-02	1.35E+00
ACROLEIN	1.17E-03	5.83E-02
ARSENIC COMPOUNDS	5.50E-05	2.75E-03
BENZENE	6.41E-03	3.20E-01
BUTADIENE, 1,3-	7.46E-03	3.73E-01
CADMIUM AND COMPOUNDS	5.16E-05	2.58E-03
CHLOROBENZENE	6.88E-06	3.44E-04
CHROMIUM (HEXAVALENT)	3.44E-06	1.72E-04
COPPER AND COMPOUNDS	1.41E-04	7.05E-03
ETHYL BENZENE	3.75E-04	1.87E-02
FORMALDEHYDE	5.94E-02	2.97E+00
HEXANE-N	9.25E-04	4.63E-02
HYDROCHLORIC ACID	6.41E-03	3.20E-01
LEAD & COMPOUNDS	2.86E-04	1.43E-02
MANGANESE AND COMPOUNDS	1.07E-04	5.33E-03
MERCURY AND COMPOUNDS	6.88E-05	3.44E-03
NAPHTHALENE	6.78E-04	3.39E-02
NICKEL AND NICKEL COMPOUNDS	1.34E-04	6.71E-03
POLYCYCLIC AROM. HC (PAH) [Treat as B(a)P for HRA]	1.25E-03	6.23E-02
PROPYLENE	1.61E-02	8.03E-01
SELENIUM AND COMPOUNDS	7.57E-05	3.78E-03
TOLUENE	3.63E-03	1.81E-01
XYLENES	1.46E-03	7.29E-02

Source: Acute TACs – Ventura County, 5/17/01.

Diesel particulate exhaust is a surrogate for all toxic air contaminant annual emissions from diesel-fueled engines when determining the potential cancer risk and noncancer chronic hazard index. Speciated toxic air contaminant hourly emissions are used when determining the potential noncancer acute hazard index.

Process Data:

Operation Parameter	Value
Diesel particulate emission factor (g/hp-hr)	0.015
Engine horsepower (bhp)	755
Fuel Consumption (gal/hr)	34.40
Annual hours of operation	50

Release Parameters:

Exhaust Flow Rate, cfm:	3625
Exhaust Temperature, °F:	901
Stack Height above ground, ft:	9.8
Stack Diameter, ft:	0.67

Discussion

The HRA was conducted in accordance with EPA and OEHHA guidance and District standard procedures. A point source was modeled with refined air dispersion modeling using EPA's AERMOD model, AERMET (Version 24142) processed Kearny Villa Road 2020/2022 sigma theta updated meteorology data, AERMAP terrain processing, and rural dispersion coefficients. Building downwash effects were calculated using the EPA BPIP-Prime model. The receptor grid was sufficiently dense to identify maximum impacts.

These risk results are based on the risk scenario calculations and health data at the time of the review and should not be scaled with revised emissions rates without consulting with the Toxics Section.

*HARP - HRACalc v22118 3/24/2025 9:41:18 AM - Cancer Risk - Input File: D:\8487_RSF Old Course Rd\8487_HARP\resident_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	RISK_SUM	INH_RISK	SCENARIO
1	Engine		9901	DieselExhF	0.000491	3.65E-07	3.65E-07	30YrCancerRMP_InhSoilDermMMilk_FAH16to70

*HARP - HRACalc v22118 3/24/2025 9:41:18 AM - Chronic Risk - Input File: D:\8487_RSF Old Course Rd\8487_HARP\resident_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	RESP	SCENARIO
1	Engine		9901	DieselExhF	0.000491	9.82E-05	NonCancerChronicDerived_InhSoilDermMMilk

*HARP - HRACalc v22118 3/24/2025 9:41:18 AM - Acute Risk - Input File: D:\8487_RSF Old Course Rd\8487_HARP\resident_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	EYE	SCENARIO
1	Engine		9901	DieselExhF	0	0.00E+00	NonCancerAcute
2	Engine		75070	Acetaldehy	3.14	6.68E-03	NonCancerAcute
3	Engine		107028	Acrolein	0.136	5.44E-02	NonCancerAcute
4	Engine		7440382	Arsenic	0.00642	0.00E+00	NonCancerAcute
5	Engine		71432	Benzene	0.748	0.00E+00	NonCancerAcute
6	Engine		106990	1,3-Butadi	0.871	0.00E+00	NonCancerAcute
7	Engine		7440439	Cadmium	0.00602	0.00E+00	NonCancerAcute
8	Engine		108907	Chloroben	0.000803	0.00E+00	NonCancerAcute
9	Engine		18540299	Cr(VI)	0.000401	0.00E+00	NonCancerAcute
10	Engine		7440508	Copper	0.0165	0.00E+00	NonCancerAcute
11	Engine		100414	Ethyl Benz	0.0437	0.00E+00	NonCancerAcute
12	Engine		50000	Formaldeh	6.93	1.26E-01	NonCancerAcute
13	Engine		110543	Hexane	0.108	0.00E+00	NonCancerAcute
14	Engine		7647010	HCl	0.748	3.56E-04	NonCancerAcute
15	Engine		7439921	Lead	0.0333	0.00E+00	NonCancerAcute
16	Engine		7439965	Manganes	0.0124	0.00E+00	NonCancerAcute
17	Engine		7439976	Mercury	0.00803	0.00E+00	NonCancerAcute
18	Engine		91203	Naphthale	0.0791	0.00E+00	NonCancerAcute
19	Engine		7440020	Nickel	0.0157	0.00E+00	NonCancerAcute
20	Engine		1151	PAHs-w/o	0.145	0.00E+00	NonCancerAcute
21	Engine		115071	Propylene	1.87	0.00E+00	NonCancerAcute
22	Engine		7782492	Selenium	0.00883	0.00E+00	NonCancerAcute
23	Engine		108883	Toluene	0.423	8.46E-05	NonCancerAcute
24	Engine		1330207	Xylenes	0.17	7.73E-06	NonCancerAcute
						1.88E-01	

PROJECT TITLE:

APP008487
Annual x/q

COMMENTS:

SOURCES:

1

RECEPTORS:

17917

OUTPUT TYPE:

Concentration

MAX:

54.1 ug/m^3

COMPANY NAME:

MODELER:

DATE:

3/24/2025

SCALE: 1:1,247

0 0.03 km

PROJECT NO.:

PROJECT TITLE:

APP008487
Hourly x/q

COMMENTS:

SOURCES:

1

RECEPTORS:

17917

OUTPUT TYPE:

Concentration

MAX:

926 ug/m^3

COMPANY NAME:

MODELER:

DATE:

3/24/2025

SCALE: 1:1,846

0 0.05 km

PROJECT NO.:

Facility Name:	RSF Old Course Rd. LLC
Application Number:	APCD2024-APP-008487
Site ID Number:	APCD2024-SITE-04672
Equipment Address:	16202 Sunny Summit Drive, San Diego, CA 92127
Project Description	New emergency diesel engine
Project Engineer:	Austin Stein
Make:	Cummins
Model:	QSX15-G9
S/N:	TBD
Fuel Type:	Diesel
BHP Rating:	755
Model Year:	2021
Tier Level:	2
Engine Family Number:	MCEXL015.AAJ
Device Driven:	500 kW standby generator
Emissions Controls:	Aftermarket, CARB LEVEL 3 certified for relevant EPA family number, DPF/DOC - Johnson Matthey CRT

Completion Check List

Item	Attached and Completed?		
	Yes	No	Notes
General Application	x		
Emergency Engine Supplemental Form	x		
Toxics Form	x		
Plot Plan(s)/Site Map(s) with required locations	x		
Engine Manufacturer Specs	x		
Engine Emissions Data	x		
Engine CARB/EPA Certification	x		
Control Equipment Specs (if applicable)	x		
BACT Analysis (if applicable)			

	Based on Manufacturer Specs			Uncontrolled Emissions (From EPA Engine Family #)		Control Efficiency of DPF/DOC (from manufacturer spec)	
NOx, g/BHP-hr:	4.21	5.64	g/kW-hr	5.64	g/kW-hr	NOx	0%
CO, g/BHP-hr:	0.09	0.12	g/kW-hr	0.60	g/kW-hr	CO	80%
NMHC, g/BHP-hr:	0.02	0.03	g/kW-hr	0.1	g/kW-hr	NMHC	70%
PM10, g/BHP-hr:	0.015	0.02	g/kW-hr	0.13	g/kW-hr	PM10	85%

NOx, g/BHP-hr: + NMHC, g/BHP-hr: 4.23

Standards for New Stationary Emergency Diesel Fueled Engines

Rule 69.4.1 Standards:	g/BHP-hr	Pass
NOx	4.80	Yes
CO	2.60	Yes
ATCM Standards	g/BHP-hr	Pass
Nox + NMHC	4.80	Yes
CO	2.60	Yes
PM	0.15	Yes
NSPS IIII	g/BHP-hr	Pass
Nox + NMHC	4.80	Yes
CO	2.60	Yes
PM	0.15	Yes

Fuel Usage, gal/hr:	34.4
Operating Schedule, hrs/day:	24
Operating Schedule, hrs/yr:	50
Exhaust Flow Rate, cfm:	3625
Exhaust Temperature, °F:	901
Stack Height above ground, ft:	9.8
Stack Diameter, ft:	0.7

Nearest School, ft:	320.00		
Residential Receptor, m:	78.33	257	ft
Occupational Receptor, m:	28.65	94	ft
Acute Receptor, m:	28.65	94	ft

AB3205?	AB3205 is Required
Consult Toxics?	Receptor Distances are more than 25 meters.

Vertical Exhaust? (yes/no):	yes
Flapper Valve? (flapper/raincap):	Flapper
Plot Plan? (yes/no):	yes
Flow Obstructions:	no

San Diego Air Pollution Control District
Supplemental Application Information
Rule 1200 Toxics Evaluation

(ALL REQUESTED INFORMATION IS IMPORTANT - PLEASE FILL BLUE CELLS)

Facility Name: RSF Old Course Rd. LLC
Equipment Location: 16202 Sunny Summit Drive, San Diego, CA 92127
Project Description:
Control Equipment: None
Operating Schedule: Hours per Day: Weeks per Year:
Days per Week: Days per Year:

RELEASE POINT DATA

How are the emissions from this project released into the outdoor air? (Check all that apply)

Point Source	Non-Point Source		
☑ Exhaust Stack	☐ Passive Ventilation	☐ Released through windows and/or roll-up doors	☐ Fugitive Emissions

Point Source

Parameter	Point Source #1	Point Source #2	Point Source #3
Height of release above ground (ft)	9.8		
Stack Diameter (or length x width) (ft)	0.67		
Exhaust Gas Temperature (°F)[1]	901		
Exhaust Gas Flow (ACFM)	3625		
Direction of Flow[2]	vertical		
Flow Obstruction[3]	no		
Distance to Nearest Property Line (+/- 10ft)	94.00		

[1] Use "70 °F" or "Ambient" if unknown
[2] if "other" describe:
[3] if "other" describe:

AERIAL MAP AND FACILITY PLOT PLAN must be attached and labeled with **Release Point(s) and Building(s)**
(includes facility and neighboring buildings within 5x the release height of a point source(s)).

Parameter	Building A	Building B	Building C
Point Source(s)			
Point Source Location			
Building Length (ft) (optional)			
Building Width (ft) (optional)			
Building Height above ground (ft)			

San Diego APCD Use Only

Additional Rule 1200 Submittal Information

Submittal Date:		Site ID:	APCD2024-SITE-04672
Project Engineer:	Austin Stein	Appl. Number(s):	APCD2024-APP-008487
Fees Collected:		PTO No. (if existing):	

FACILITY NAME: RSF Old Course Rd. LLC

Fuel Consumption (gal/hr):	34.40
Diesel Particulate Emission Factor (g/hp-hr):	0.014547
Brake Horsepower (hp):	755
Annual Hours of Operation (hrs):	50
FACILITY ID:	APCD2024-SITE-04672
APPLICATION NO.:	APCD2024-APP-008487
ENGINEER:	**Austin Stein**

RISK ANALYST ONLY

DISPERSION MODELING DATA

Annual Receptor Type:	Resident
ANNUAL DISPERSION FACTOR (µg/m3)/(g/s):	**28.2**
Distance (m):	
Hourly Receptor Type:	PMI
HOURLY DISPERSION FACTOR (µg/m3)/(g/s):	**926.0**
Distance (m):	

CHEMICAL NAME	Emission Factor lb/1000 gal	Acute Emission Rate lb/hr	Annual Emission Rate lb/yr	Acute Emissions Rate g/s	Annual Emission Rate g/s	Hourly GLC µg/m^3	Annual GLC µg/m^3
DIESEL PARTICULATE			1.21E+00		1.74E-05		4.91E-04
ACETALDEHYDE	7.83E-01	2.69E-02	1.35E+00	3.39E-03		3.14E+00	
ACROLEIN*	3.39E-02	1.17E-03	5.83E-02	1.47E-04		1.36E-01	
ARSENIC COMPOUNDS	1.60E-03	5.50E-05	2.75E-03	6.94E-06		6.42E-03	
BENZENE	1.86E-01	6.41E-03	3.20E-01	8.07E-04		7.48E-01	
BUTADIENE, 1,3-	2.17E-01	7.46E-03	3.73E-01	9.41E-04		0.87097	
CADMIUM AND COMPOUNDS	1.50E-03	5.16E-05	2.58E-03	6.50E-06		6.02E-03	
CHLOROBENZENE	2.00E-04	6.88E-06	3.44E-04	8.67E-07		8.03E-04	
CHROMIUM (HEXAVALENT)	1.00E-04	3.44E-06	1.72E-04	4.33E-07		4.01E-04	
COPPER AND COMPOUNDS	4.10E-03	1.41E-04	7.05E-03	1.78E-05		1.65E-02	
ETHYL BENZENE	1.09E-02	3.75E-04	1.87E-02	4.72E-05		4.37E-02	
FORMALDEHYDE	1.73E+00	5.94E-02	2.97E+00	7.48E-03		6.93E+00	
HEXANE-N	2.69E-02	9.25E-04	4.63E-02	1.17E-04		1.08E-01	
HYDROCHLORIC ACID	1.86E-01	6.41E-03	3.20E-01	8.07E-04		7.48E-01	
LEAD & COMPOUNDS	8.30E-03	2.86E-04	1.43E-02	3.60E-05		3.33E-02	
MANGANESE AND COMPOUNDS	3.10E-03	1.07E-04	5.33E-03	1.34E-05		1.24E-02	
MERCURY AND COMPOUNDS (INORGANIC)	2.00E-03	6.88E-05	3.44E-03	8.67E-06		8.03E-03	
NAPHTHALENE	1.97E-02	6.78E-04	3.39E-02	8.54E-05		7.91E-02	
NICKEL AND NICKEL COMPOUNDS	3.90E-03	1.34E-04	6.71E-03	1.69E-05		1.57E-02	
POLYCYCLIC AROM. HC (PAH) [Treat as B(a)P for	3.62E-02	1.25E-03	6.23E-02	1.57E-04		1.45E-01	
PROPYLENE	4.67E-01	1.61E-02	8.03E-01	2.02E-03		1.87E+00	
SELENIUM AND COMPOUNDS	2.20E-03	7.57E-05	3.78E-03	9.54E-06		8.83E-03	
TOLUENE	1.05E-01	3.63E-03	1.81E-01	4.57E-04		4.23E-01	
XYLENES	4.24E-02	1.46E-03	7.29E-02	1.84E-04		1.70E-01	

HARP2 - HRACalc (dated 22118) 3/24/2025 9:41:18 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 30

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 14
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Warm

****
TIER 2 SETTINGS
Tier2 not used.

****

Calculating cancer risk
Cancer risk saved to: D:\8487_RSF Old Course Rd\8487_HARP\resident_CancerRisk.csv
Calculating chronic risk
Chronic risk saved to: D:\8487_RSF Old Course Rd\8487_HARP\resident_NCChronicRisk.csv
Calculating acute risk
Acute risk saved to: D:\8487_RSF Old Course Rd\8487_HARP\resident_NCAcuteRisk.csv
HRA ran successfully

*** MODELOPTs: RegDFAULT CONC ELEV RURAL SigA Data

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR	EMIS RATE SCALAR VARY BY
STCK1	0	0.10000E+01	487021.6	3653774.0	155.5	2.99	755.93	52.23	0.20	YES	NO	NO	

*** AERMOD - VERSION 24142 *** *** D:\Modeling Projects\8487_RSF_Old_Course\8487_RSF_Old_Course.isc *** 03/20/25
*** AERMET - VERSION 24142 *** *** *** 16:27:46

*** MODELOPTs: RegDFAULT CONC ELEV RURAL SigA Data

*** MODEL SETUP OPTIONS SUMMARY ***

** Model Options Selected:
* Model Uses Regulatory DEFAULT Options
* Model Is Setup For Calculation of Average CONCentration Values.
* NO GAS DEPOSITION Data Provided.
* NO PARTICLE DEPOSITION Data Provided.
* Model Uses NO DRY DEPLETION. DDPLETE = F
* Model Uses NO WET DEPLETION. WETDPLT = F
* Stack-tip Downwash.
* Model Accounts for ELEVated Terrain Effects.
* Use Calms Processing Routine.
* Use Missing Data Processing Routine.
* No Exponential Decay.
* Model Uses RURAL Dispersion Only.
* CCVR_Sub - Meteorological data includes CCVR substitutions

```
     * TEMP_Sub - Meteorological data includes TEMP substitutions
     * Model Assumes No FLAGPOLE Receptor Heights.
     * The User Specified a Pollutant Type of: OTHER

**Model Calculates  1 Short Term Average(s) of:   1-HR
    and Calculates PERIOD Averages

**This Run Includes:      1 Source(s);       1 Source Group(s); and   17917 Receptor(s)

               with:      1 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:      0 VOLUME source(s)
                and:      0 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 RLINE/RLINEXT source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                and:      0 SWPOINT source(s)


**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date:  24142

**Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   132.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                             ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      5.5 MB of RAM.
```

```
 **Input Runstream File:          aermod.inp
 **Output Print File:             aermod.out

 **Detailed Error/Message File:   8487_RSF_Old_Course.err
 **File for Summary of Results:   8487_RSF_Old_Course.sum
 *** AERMOD - VERSION 24142  ***   *** D:\Modeling Projects\8487_RSF_Old_Course\8487_RSF_Old_Course.isc     ***        03/20/25
 *** AERMET - VERSION  24142 ***   ***                                                                     ***        16:27:46
                                                                                                                      PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

                                        *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                          (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
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           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1

               NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                       (METERS/SEC)

                                                1.54,   3.09,   5.14,   8.23,  10.80,
 *** AERMOD - VERSION 24142  ***   *** D:\Modeling Projects\8487_RSF_Old_Course\8487_RSF_Old_Course.isc     ***        03/20/25
 *** AERMET - VERSION  24142 ***   ***                                                                     ***        16:27:46
                                                                                                                      PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

  Surface file:   C:\Users\breeve\OneDrive - County of San Diego\Meteorology Documents\AERMET File   Met Version:  24142
```

Profile file: C:\Users\breeve\OneDrive - County of San Diego\Meteorology Documents\AERMET File
Surface format: FREE
Profile format: FREE
Surface station no.: 93107 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2020 Year: 2020

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
20	01	01	1	01	-10.8	0.101	-9.000	-9.000	-999.	77.	8.6	0.04	1.12	1.00	2.82	57.	10.0	283.1	10.0
20	01	01	1	02	-6.6	0.081	-9.000	-9.000	-999.	56.	7.2	0.06	1.12	1.00	2.06	73.	10.0	282.6	10.0
20	01	01	1	03	-7.6	0.085	-9.000	-9.000	-999.	60.	7.2	0.04	1.12	1.00	2.37	54.	10.0	283.5	10.0
20	01	01	1	04	-6.0	0.075	-9.000	-9.000	-999.	50.	6.4	0.04	1.12	1.00	2.10	59.	10.0	283.0	10.0
20	01	01	1	05	-9.1	0.095	-9.000	-9.000	-999.	70.	8.5	0.06	1.12	1.00	2.41	63.	10.0	282.4	10.0
20	01	01	1	06	-6.1	0.078	-9.000	-9.000	-999.	52.	6.9	0.06	1.12	1.00	1.97	64.	10.0	282.6	10.0
20	01	01	1	07	-5.8	0.076	-9.000	-9.000	-999.	50.	6.7	0.06	1.12	1.00	1.92	70.	10.0	282.5	10.0
20	01	01	1	08	-1.9	0.049	-9.000	-9.000	-999.	26.	5.6	0.10	1.12	0.50	1.12	129.	10.0	282.4	10.0
20	01	01	1	09	35.0	0.125	0.383	0.005	58.	106.	-5.0	0.09	1.12	0.30	1.03	112.	10.0	286.4	10.0
20	01	01	1	10	86.9	0.261	0.897	0.005	297.	321.	-18.4	0.10	1.12	0.23	2.46	148.	10.0	289.0	10.0
20	01	01	1	11	122.3	0.218	1.240	0.005	558.	246.	-7.6	0.07	1.12	0.21	2.01	225.	10.0	290.5	10.0
20	01	01	1	12	139.1	0.279	1.433	0.005	756.	353.	-13.9	0.07	1.12	0.20	2.77	211.	10.0	291.3	10.0
20	01	01	1	13	136.5	0.296	1.559	0.005	991.	386.	-16.9	0.07	1.12	0.20	3.00	210.	10.0	291.2	10.0
20	01	01	1	14	114.7	0.311	1.526	0.005	1105.	417.	-23.4	0.07	1.12	0.21	3.26	234.	10.0	290.8	10.0
20	01	01	1	15	75.0	0.316	1.351	0.005	1173.	425.	-37.3	0.07	1.12	0.24	3.44	227.	10.0	290.3	10.0
20	01	01	1	16	20.5	0.251	0.881	0.005	1189.	304.	-68.8	0.05	1.12	0.33	3.08	244.	10.0	289.4	10.0
20	01	01	1	17	-5.7	0.078	-9.000	-9.000	-999.	92.	7.5	0.07	1.12	0.61	1.92	236.	10.0	288.2	10.0
20	01	01	1	18	-7.6	0.092	-9.000	-9.000	-999.	67.	9.1	0.15	1.12	1.00	1.92	193.	10.0	287.3	10.0
20	01	01	1	19	-5.9	0.080	-9.000	-9.000	-999.	54.	7.7	0.10	1.12	1.00	1.83	140.	10.0	286.6	10.0
20	01	01	1	20	-2.6	0.053	-9.000	-9.000	-999.	29.	5.1	0.10	1.12	1.00	1.21	144.	10.0	286.2	10.0
20	01	01	1	21	-2.5	0.051	-9.000	-9.000	-999.	28.	4.7	0.09	1.12	1.00	1.21	99.	10.0	285.3	10.0
20	01	01	1	22	-4.1	0.065	-9.000	-9.000	-999.	40.	5.9	0.06	1.12	1.00	1.65	76.	10.0	284.8	10.0
20	01	01	1	23	-1.7	0.042	-9.000	-9.000	-999.	20.	3.8	0.09	1.12	1.00	0.98	99.	10.0	284.5	10.0
20	01	01	1	24	-3.6	0.060	-9.000	-9.000	-999.	35.	5.3	0.06	1.12	1.00	1.52	78.	10.0	283.8	10.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
20	01	01	01	10.0	1	57.	2.82	283.2	6.0	-99.00	0.29

*** MODELOPTs: RegDFAULT CONC ELEV RURAL SigA Data

*** THE SUMMARY OF MAXIMUM PERIOD (26304 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	54.12396	AT (486952.50, 3653714.50, 156.58, 161.24, 0.00)	DC	
	2ND HIGHEST VALUE IS	53.32629	AT (486937.50, 3653714.50, 156.96, 161.24, 0.00)	DC	
	3RD HIGHEST VALUE IS	50.78598	AT (486967.50, 3653714.50, 156.15, 161.15, 0.00)	DC	
	4TH HIGHEST VALUE IS	49.92773	AT (486922.50, 3653729.50, 160.51, 160.51, 0.00)	DC	
	5TH HIGHEST VALUE IS	49.17130	AT (486937.50, 3653729.50, 160.61, 160.61, 0.00)	DC	
	6TH HIGHEST VALUE IS	47.89283	AT (486952.50, 3653729.50, 160.33, 160.33, 0.00)	DC	
	7TH HIGHEST VALUE IS	47.17050	AT (486922.50, 3653714.50, 157.13, 161.43, 0.00)	DC	
	8TH HIGHEST VALUE IS	43.78999	AT (486907.50, 3653729.50, 160.10, 160.10, 0.00)	DC	
	9TH HIGHEST VALUE IS	42.84523	AT (487022.96, 3653757.41, 155.13, 156.75, 0.00)	DC	
	10TH HIGHEST VALUE IS	41.57109	AT (486982.50, 3653714.50, 155.66, 161.05, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV RURAL SigA Data

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

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                                   ** CONC OF OTHER    IN MICROGRAMS/M**3                          **

                                                                  DATE                                                                   NETWORK
GROUP ID                                  AVERAGE CONC     (YYMMDDHH)             RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS     926.00711  ON 21010502: AT (  486967.50,  3653714.50,   156.15,   161.15,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION 24142  ***   *** D:\Modeling Projects\8487_RSF_Old_Course\8487_RSF_Old_Course.isc     ***        03/20/25
 *** AERMET - VERSION  24142 ***   ***                                                                     ***        16:27:46
                                                                                                                      PAGE   6
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of         1415 Informational Message(s)

 A Total of        26304 Hours Were Processed

 A Total of          654 Calm Hours Identified

 A Total of          761 Missing Hours Identified (  2.89 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
```

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SO W320      37        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
MX W403      99      PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data
```

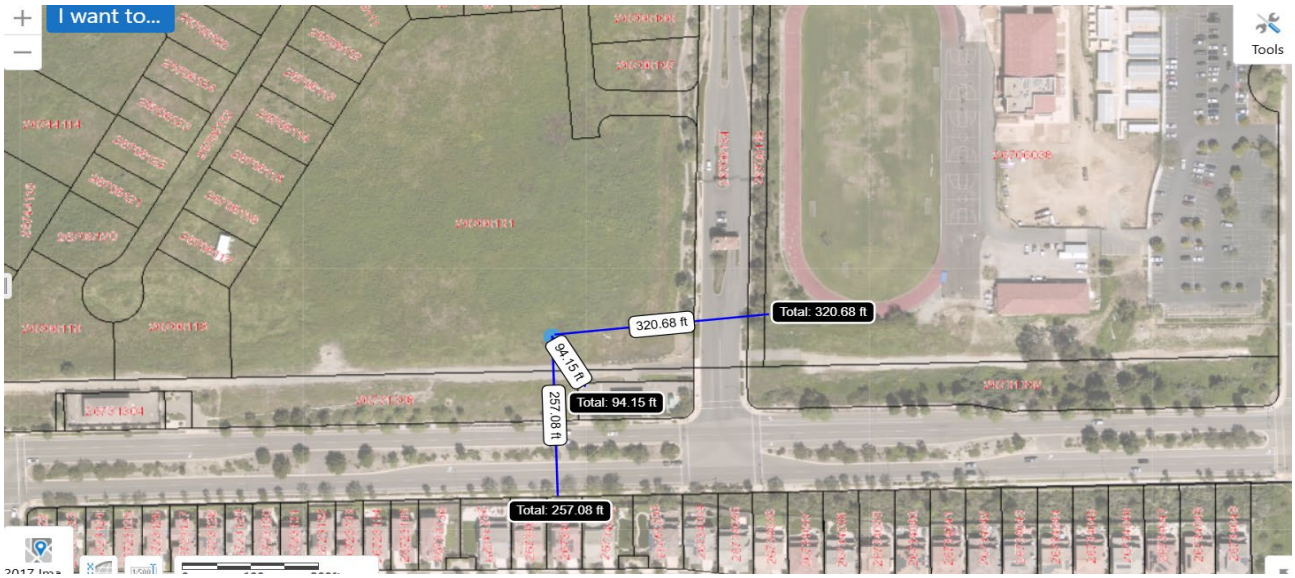

16202 SUNNY SUMMIT DRIVE, SAN DIEGO, CA 92127

FACILITY PLOT PLAN SCALE 1" = 30'-0"

Galvez, Maria

From: Stein, Austin C
Sent: Tuesday, March 4, 2025 9:11 AM
To: Reeve, Bill; Nguyen, Tony
Cc: Canter, Adam; Horres, Nicholas; Herzig, Joe
Subject: 8487_RSF Old Course Road - HRA Request

Hello,

Here is an HRA request.

This engine has an aftermarket DPF, certified CARB level 3 for the EPA engine family corresponding to this model year. This engine will be built on the same property and close to a new building. This new building's dimensions can be seen roughly in plans on the calculations sheet. The height of the building looks to be 44 ft. If more information is needed to model this, please let me know.

Please have the modeler post the results in 8487_RSF Old Course Rd

Thank you so much,

San Diego County
Air Pollution
Control District