San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

May 14, 2026

Sandy Suderman
Pacific Pipeline System
19430 Beech Ave
Shafter, CA 93263

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: S-2893
Project Number: S-1254473

Dear Ms. Suderman:

Enclosed for your review and comment is the District's analysis of Pacific Pipeline System's application for an Authority to Construct for the installation of a 5,647 BHP Caterpillar Model C175-20 Tier 4 final compliant diesel-fired emergency standby IC engine with selective catalytic reduction (SCR) and CARB Certified diesel particulate filter (DPF) powering an electrical generator at 7901 Grapevine Road in Lebec, CA.

The notice of preliminary decision for this project has been posted on the District's website (https://valleyair.org/). After addressing all comments made during the 30-day public notice period, the District intends to issue the Authority to Construct. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Ms. Cristina LaFore of Permit Services at (661) 392-5556.

Sincerely,

Brian Clements
Director of Permit Services

BC:cl

Enclosures

cc: Courtney Graham, CARB (w/ enclosure) via email

Samir Sheikh
Executive Director/Air Pollution Control Officer

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San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Tier 4 Final Compliant Diesel-Fired Emergency Standby IC Engine

Facility Name:	Pacific Pipeline System Inc	Date:	3/12/26
Mailing Address:	19430 Beech Ave Shafter, CA 93263	Engineer:	Cristina LaFore
		Lead Engineer:	Marissa Mak
Facility Contact Person:	Sandy Suderman, HSE Specialist II		
Contact Telephone:	661-549-8784		
Contact E-Mail:	Sandy.suderman@plains.com		
Application #(s):	S-2893-2-0		
Project #:	S-1254473		
Date Deemed Complete:	December 18, 2025		

I. Proposal

Pacific Pipeline System Inc has requested an Authority to Construct (ATC) permit for the installation of a 5,647 BHP Caterpillar (CAT) Model C175-20 Tier 4F compliant diesel-fired emergency standby IC engine powering an electrical generator. The proposed engine is a Tier 2 engine that will be retrofitted with a selective catalytic reduction (SCR) and diesel particulate filter (DPF) to meet the EPA emission standards of a Tier 4 Final (4F) engine. The draft ATC is included in Appendix A.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/20/23)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/20/24)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4701	Internal Combustion Engines – Phase 1 (8/21/03)
Rule 4702	Internal Combustion Engines (8/19/21)
Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

Title 17 CCR, Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)

California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The facility is located at 7901 Grapevine Road in Lebec, CA 93243. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

The IC engine will provide emergency backup electrical power to the pumping facility when grid power is unavailable. The pumping facility transports crude oil between the Central Valley and Los Angeles Basin. Other than emergency standby operation, the engine may be operated up to 50 hours per year for maintenance and testing purposes.

V. Equipment Listing

S-2893-2-0: 5,647 BHP (INTERMITTENT) CATERPILLAR MODEL C175-20 TIER 4F COMPLIANT DIESEL-FIRED EMERGENCY STANDBY IC ENGINE WITH SCR AND A CARB-CERTIFIED DPF POWERING AN ELECTRICAL GENERATOR

VI. Emission Control Technology Evaluation

The applicant has proposed to install an equivalent Tier 4F certified diesel-fired IC engine that is fired on very low-sulfur diesel fuel. The unit will be retrofitted with SCR and DPF system to meet the Tier 4F requirements.

An SCR system is an external control device in which exhaust gases and a reagent, in this case, a urea solution known as diesel exhaust fluid (DEF), passes through an appropriate catalyst. The urea solution will be injected upstream of the catalyst where it is converted to ammonia. The ammonia reduces NOx over the catalyst bed forming elemental nitrogen, water vapor, and other by-products. SCR systems can reduce NOx emissions by over 90%.

DPFs can significantly reduce diesel PM emissions. DPFs typically use a porous ceramic or cordierite substrate or metallic filter to physically trap PM and remove it from the exhaust stream. Trapped and collected PM is reduced to ash during filter regeneration, which occurs when the filter element reaches the temperature required for combustion of the PM. DPFs can reduce diesel PM by over 85%.

The proposed engine meets the latest Tier Certification emission requirements for emergency standby engines; therefore, the engine meets the latest ARB/EPA emissions standards for diesel particulate matter, hydrocarbons, nitrogen oxides, and carbon monoxide (see Appendix E for a copy of the emissions data sheet and the ARB/EPA executive order for the DPF).

The use of CARB certified diesel fuel (0.0015% by weight sulfur maximum) reduces SO_X emissions by over 99% from standard diesel fuel.

VII. General Calculations

A. Assumptions

Emergency operating schedule:	24 hours/day
Non-emergency operating schedule:	50 hours/year
Density of diesel fuel:	7.1 lb/gal
EPA F-factor (adjusted to 60 °F):	9,051 dscf/MMBtu
Fuel heating value:	137,000 Btu/gal
BHP to Btu/hr conversion:	2,542.5 Btu/bhp-hr
Thermal efficiency of engine:	commonly ≈ 35%
PM_{10} fraction of diesel exhaust:	0.96 (CARB, 1988)
Conversion factor:	1.34 bhp/kw

To streamline emission calculations, PM2.5 emissions are assumed to be equal to PM10 emissions. Only if needed to determine if a project is a Federal major modification for PM2.5 will specific PM2.5 emission calculations be performed.

B. Emission Factors

For the new diesel-fired IC engine with the SCR and DPF system, the emissions factors for NOx, CO, VOC, and PM10 are provided by the applicant and are guaranteed by the SCR/DPF manufacturer. The SOx emission factor is calculated using the sulfur content in the diesel fuel (0.0015% sulfur).

Diesel-fired IC Engine Emission Factors		
Pollutant	**g/hp·hr**	**Source**
NOx	0.5	SCR/DPF Manufacturer
*SOx	0.0051	Mass Balance Equation Below
PM10	0.02	SCR/DPF Manufacturer
CO	2.6	SCR/DPF Manufacturer
VOC	0.14	SCR/DPF Manufacturer

$$\frac{0.000015\,lb\cdot S}{lb\cdot fuel}\times\frac{7.1\,lb\cdot fuel}{gallon}\times\frac{2\,lb\cdot SO_2}{1\,lb\cdot S}\times\frac{1\,gal}{137{,}000\,Btu}\times\frac{1\,hp\,input}{0.35\,hp\,out}\times\frac{2{,}542.5\,Btu}{hp\cdot hr}\times\frac{453.6\,g}{lb}=0.0051\frac{g\cdot SOx}{hp\cdot hr}$$

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since this is a new emissions unit, PE1 = 0 for all pollutants.

2. Post-Project Potential to Emit (PE2)

The daily and annual PE2 are calculated as follows:

Daily PE2 (lb-pollutant/day) = EF (g-pollutant/bhp-hr) x rating (bhp) x operation (hr/day) / 453.6 g/lb

Annual PE2 (lb-pollutant/yr) = EF (g-pollutant/bhp-hr) x rating (bhp) x operation (hr/yr) / 453.6 g/lb

Post Project Emissions (PE2)						
Pollutant	**Emissions Factor (g/bhp-hr)**	**Rating (bhp)**	**Daily Hours of Operation (hrs/day)**	**Annual Hours of Operation (hrs/year)**	**Daily PE2 (lb/day)**	**Annual PE2 (lb/yr)**
NO_x	0.5	5,647	24	50	**149.4**	**311**
SO_x	0.0051	5,647	24	50	**1.5**	**3**
PM_{10}	0.02	5,647	24	50	**6.0**	**12**
CO	2.6	5,647	24	50	**776.8**	**1,618**
VOC	0.14	5,647	24	50	**41.8**	**87**

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site, including all ERCs held as certificates and all emission reduction credits sold or transferred.

SSPE1 (lb/year)					
Permit Unit	**NOx**	**SOx**	**PM10**	**CO**	**VOC**
S-2893-1-1	0	0	0	0	151
SSPE1	**0**	**0**	**0**	**0**	**151**

4. Post-Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source, except for emissions units proposed to be shut down as part of a Stationary Source Project, and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site, including all ERCs held as certificates and all emission reduction credits sold or transferred.

SSPE2 (lb/year)					
Permit Unit	**NOx**	**SOx**	**PM10**	**CO**	**VOC**
S-2893-1-1	0	0	0	0	151
S-2893-2-0 (new)	311	3	12	1,618	87
SSPE2	**311**	**3**	**12**	**1,618**	**238**

5. Major Source Determination

Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status, the following shall NOT be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months), pursuant to the Clean Air Act, Title 3, Section 302, US Codes 7602(j) and (z)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

Rule 2201 Major Source Determination (lb/year)						
	NOx	**SOx**	**PM10**	**PM2.5**	**CO**	**VOC**
SSPE1	0	0	0	0	0	0
SSPE2	311	3	12	12	1,618	87
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No	No

Note: PM2.5 assumed to be equal to PM10

As seen in the table above, the facility is not an existing Major Source and is not becoming a Major Source as a result of this project.

Rule 2410 (Prevention of Significant Deterioration) Major Source Determination:

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO_2	VOC	SO_2	CO	PM*	PM10
Estimated Facility PE before Project Increase	0	0.04	0	0.81	0	0
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	No	No	No	No	No

*PM assumed to be equal to PM10.

As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to calculate the Quarterly Net Emissions Change (QNEC), and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.
As shown in Section VII.C.5 above, the facility is not a Major Source for any pollutant.

Therefore BE = PE1.

S-2893-2-0:
Since this is a new emissions unit, BE = PE1 = 0 for all pollutants.

7. Senate Bill 288 Major Modification

A Senate Bill (SB) 288 Major Modification is a federal major modification under 40 CFR 51.165 as it existed on December 19, 2002. 40 CFR Part 51.165 (12/19/02) defines a Major Modification as any physical change in or change in the method of operation of *an*

existing major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act.

Per section VII.C.5 above, this facility is not a Major Source for any of the pollutants addressed in this project. Thus, this project does not constitute an SB 288 major modification and no further discussion is required.

8. Federal Major Modification / New Major Source

Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

As defined in 40 CFR 51.165, Section (a)(1)(v) and part D of Title I of the CAA, a Federal Major Modification is any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act. The significant net emission increase threshold for each criteria pollutant is included in Rule 2201.

Per section VII.C.5 above, this facility is not a Major Source for any pollutants addressed in this project. Thus, this project does not constitute a Federal Major Modification and no further discussion is required.

New Major Source

Per section VII.C.5 above, this facility is not becoming a Major Source as a result of this project, therefore, this facility is not a New Major Source pursuant to Section 3.30 of District Rule 2201.

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10

I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source

subject to PSD requirements.

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). The PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO_2	VOC	SO_2	CO	PM	PM10
Total PE from New and Modified Units	0.16	0.04	0	0.81	0	0
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	No	No	No	No	No	No

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Detailed QNEC calculations are included in Appendix F.

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

Pursuant to District Rule 2201, Section 4.1, BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

a. Any new emissions unit with a potential to emit exceeding 2.0 pounds per day, or the relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding 2.0 pounds per day,
b. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an Adjusted Increase in Permitted Emissions (AIPE) exceeding 2.0 pounds per day, and/or
c. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an

SSPE2 of less than 200,000 pounds per year of CO.

a. New or relocated emissions units – PE > 2.0 lb/day

As seen in Section VII.C.2 above, the applicant is proposing to install a new diesel-fired IC engine with a PE greater than 2.0 lb/day for NOx, PM10, CO, and VOC. BACT is triggered for NOx, PM10, and VOC only since the PEs are greater than 2.0 lb/day. However BACT is not triggered for CO since the SSPE2 for CO is not greater than 200,000 lb/year, as demonstrated in Section VII.C.5 above.

b. Modification of emissions units – AIPE > 2.0 lb/day

As discussed in Section I above, there are no modified emissions units associated with this project. Therefore BACT is not triggered.

c. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does not constitute an SB 288 and/or Federal Major Modification for any pollutant. Therefore BACT is not triggered for any pollutant.

2. BACT Guideline

BACT Guideline 3.1.1, applies to the diesel-fired emergency IC engine [Emergency Diesel I.C. Engines > 50 bhp Powering an Electric Generator] (See Appendix B).

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the attached Top-Down BACT Analysis (see Appendix C), BACT has been satisfied with the following:

NOx: EPA Tier 4 Final certification or equivalent for applicable horsepower range*
PM10: EPA Tier 4 Final certification or equivalent for applicable horsepower range*
VOC: EPA Tier 4 Final certification or equivalent for applicable horsepower range*

*> 750 bhp: 0.50 g-NOx/bhp-hr, 0.02 g-PM/bhp-hr, 2.6 g-CO/bhp-hr, 0.14 g VOC/bhp-hr

B. Offsets

1. District Emission Offset Requirements

a. District Offset Applicability

Pursuant to District Rule 2201, Section 4.5, District offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals

or exceeds the offset threshold levels in Table 4-1 of District Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE2	**311**	**3**	**12**	**1,618**	**238**
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets Triggered?	No	No	No	No	No

b. District Offset Quantity (DOQ) Required

As shown above, the SSPE2 is not greater than the offset thresholds for all pollutants, therefore District offsets are not triggered. In conclusion, offsets will not be required for this project and no further discussion is required.

2. Federal Emission Offset Requirements

a. Federal Offset Applicability

Pursuant to District Rule 2201, Section 4.8, federal offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the project is a New Major Source or a Federal Major Modification.

As demonstrated in section VII.C.8 above, this project is not a New Major Source or a Federal Major Modification for any pollutant addressed in this project. Thus, federal offsets are not triggered for this project.

b. Federal Offset Quantity (FOQ) Required

As discussed above, this project does not trigger Federal Major Modification or New Major Source requirements; therefore, in conclusion, federal offsets will not be required for this project and no further discussion is required.

3. Federal Offset Equivalency Demonstration

Section 7.0 of District Rule 2201 provides the requirements for the District to demonstrate on an individual ATC issuance basis that the number of creditable emission reductions collected by the District equals or exceeds the amount of creditable emission reductions that would otherwise be required as offsets under a federal non-attainment NSR program meeting the applicable requirements of 40 CFR 51.165 and the CAA. As demonstrated above, this project does not require federal offsets; therefore, a federal offset equivalency demonstration is not required for this project and no further discussion is required.

C. Public Notification

1. Applicability

Pursuant to District Rule 2201, Section 5.4, public noticing is required for:

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
c. Any project which results in the offset thresholds being surpassed,
d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant,
e. Any project at a minor source which results in an SSPE exceeding 80% of the major source threshold for any pollutant, and/or
f. Any project which results in a Title V significant permit modification.

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

As shown in Section VII.C.5 above, this existing minor source facility is not becoming a Major Source as a result of this project. Therefore, this facility is not a New Major Source and this project does not constitute an SB 288 or a Federal Major Modification. Consequently, public noticing for this project for New Major Source, Federal Major Modification, or SB 288 Major Modification purposes is not required.

b. PE > 100 lb/day

The PE2 for this new unit is compared to the daily PE Public Notice thresholds in the following table:

PE > 100 lb/day Public Notice Thresholds			
Pollutant	**PE2 (lb/day)**	**Public Notice Threshold**	**Public Notice Triggered?**
NOx	**149.4**	100 lb/day	Yes
SOx	**1.5**	100 lb/day	No
PM10	**6.0**	100 lb/day	No
CO	**776.8**	100 lb/day	Yes
VOC	**41.8**	100 lb/day	No

Therefore, public noticing for PE > 100 lb/day purposes is required.

c. Offset Threshold

Public notification is required if the pre-project Stationary Source Potential to Emit (SSPE1) is increased to a level exceeding the offset threshold levels. The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Thresholds (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE1	0	0	0	0	151
SSPE2	311	3	12	1,618	238
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Public Notice Required?	No	No	No	No	No

As demonstrated above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1 and negative values are equated to zero. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE2	311	3	12	1,618	238
SSPE1	0	0	0	0	151
SSIPE	311	3	12	1,618	87
SSIPE Public Notice Threshold	20,000	20,000	20,000	20,000	20,000
Public Notice Required?	No	No	No	No	No

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

e. Minor Sources with SSPE Exceeding 80% of Major Source Threshold

Public notification is required for any project for new and/or modified stationary sources at minor source facilities that results in a SSPE exceeding 80% of the major source threshold.

As shown in Section VII.C.5 above, the facility is not a Major Source for any pollutant. The following table compares the SSPE1 with the SSPE2 in order to determine if 80% of any major source thresholds have been surpassed with this project.

80% of Major Source Thresholds (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE1	0	0	0	0	0
SSPE2	311	3	12	1,618	87
80% of Major Source Threshold	16,000	112,000	112,000	160,000	16,000
Public Notice Required?	No	No	No	No	No

As demonstrated above, the SSPE2 did not surpass 80% of the major source threshold for any pollutant; therefore, public noticing for this purpose is not required.

f. Title V Significant Permit Modification

Since this facility does not have a Title V operating permit, this change is not a Title V significant modification, and therefore public noticing is not required.

2. Public Notice Action

As discussed above, public noticing is required for this project for NOx and CO emissions in excess of 100 lb/day. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be electronically published on the District's website prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

For this IC engine, the DELs are stated in the form of emission factors (g/hp-hr), the maximum engine horsepower rating, and the maximum operational time of 24 hours per day.

Proposed Rule 2201 (DEL) Conditions:

- {4771} Emissions from this IC engine shall not exceed any of the following limits: 0.5 g-NOx/bhp-hr, 2.6 g-CO/bhp-hr, or 0.14 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]

- {4772} Emissions from this IC engine shall not exceed 0.02 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]

- {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]

E. Compliance Assurance

Compliant engines that are retrofitted by a 3rd party manufacturer or system integrator have the highest probability for non-compliance due to manufacturing and structural differences as well as viability in the types of emission control technologies and engine management technologies used. Therefore, more strenuous monitoring and source testing will be required.

1. Source Testing

Per District Policy SSP 1835, (Source Testing and Monitoring for Tier 4F Compliant Emergency IC Engines), initial source testing will be required for NOx, CO, and VOC to determine if the Third Party Retrofit Tier 4F Compliant Engine meets the requisite EPA Tier 4F emission requirements for the applicable horsepower range and to ensure the control system is installed properly. Annual source testing does not apply to emergency equipment. See the following section for ongoing annual monitoring requirements.

Source testing for PM10 for 3rd party retrofit Tier 4F compliant engines will be required if the proposed engine triggers BACT for PM10 and if the proposed engine is retrofitted with a non-CARB certified DPF or other uncertified after-treatment device that filters particular matter. Engines that would trigger BACT for PM10 without an emission control device (DPF) must conduct an initial source test for PM10 even if they do not trigger BACT with the emission control device in place. In any case, engines equipped with a CARB-certified DPF will not be required to source test for PM10 emissions.

The unit is equipped with a CARB-Certified DPF. Therefore, source testing is not required for PM10.

ATC permit conditions:

- {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to the source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]

- {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

- Initial source testing of the engine shall be conducted within 60 days of initial start-up of the engine to demonstrate compliance with the NOx, CO and VOC emission limits. [District Rule 2201]

- Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. An appropriately-sized resistance load bank (or equivalent) shall be used

during the emissions source testing to ensure the engine is operating at load conditions representative of normal operations. [District Rules 1081 and 2201]

- The percent load, engine output, and stack gas volumetric flow rate shall be used to convert engine emissions to a mass basis (g/bhp-hr). [District Rules 1081 and 2201]

- For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NOx, CO, and VOC concentrations shall be reported in g/bhp-hr. [District Rules 1081 and 2201]

- {Modified 3210} The following test methods shall be used: NOx (ppmv) – EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100. [District Rules 1081 and 2201]

2. Monitoring

NOx and VOC Emissions:

Per District Policy SSP 1835, (Source Testing and Monitoring for Tier 4F Compliant Emergency IC Engines),a monitoring schedule of every 12 months using a portable analyzer will be used to monitor Third-Party Retrofit Tier 4F Compliant Engines.

Monitoring of VOC emissions will not be required, as there is no practical method to periodically monitor VOC emissions from an internal combustion engine. Monitoring of compliant CO emissions will give assurance that VOC controls are also operating properly.

For IC engines, monitoring using a portable analyzer is often reported in ppmv corrected to 15 percent oxygen. In order to comply with the emission requirements listed in grams/bhp-hr, exhaust flow and power output values are required to convert the portable analyzer values from ppmv to grams/bhp-hr. The applicant may demonstrate the operating horsepower at the source tested power level using any method approved by the APCO and EPA. The following conditions should be included on the PTO:

- The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every 12 months using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive exceedances of the emission limit(s) are observed during monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule. [District Rule 2201]

- The permittee shall demonstrate the operating horsepower at the source tested power level using any method approved by the APCO and EPA. The permittee shall

document typical operating parameters, loading, and duty cycle during the initial source test and subsequent monitoring. [District Rule 2201]

- {Modified 2993} If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 2201]

- {Modified 2994} All portable analyzer emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. An appropriately-sized resistance load bank (or equivalent) shall be used during the portable analyzer monitoring to ensure the engine is operating at load conditions representative of normal operations. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 2201]

PM10 Emissions:

A DPF is expected to operate properly so long as it is properly sized for the engine application and it is maintained according to manufacturer recommended procedures and frequencies for inspection, cleaning, and replacement. The following conditions should be included on the Permit to Operate to ensure compliance for units that utilize a DPF:

- The diesel particulate filter (DPF) shall be operated and maintained according to the DPF manufacturer's specifications, procedures, and recommended inspection and cleaning frequencies. [District Rule 2201]

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following condition(s) are listed on the permit to operate:

- The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total

hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with the permit limits. [District Rules 1070 and 2201]

- The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) the stack volumetric flow rate, in standard cubic meter per hour, dry basis, (4) the emission rate of NOx and CO, converted to g/bhp-hr (5) make and model of exhaust gas analyzer, (6) exhaust gas analyzer calibration records, and (7) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 1070 and 2201]

- The permittee shall maintain records of: (1) the date and time of DPF inspection, and (2) the date and time of DPF cleaning. [District Rules 1070 and 2201]

- All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702 and 17 CCR 93115]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

Section 4.15 of District Rule 2201 requires that an AAQA be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis. Refer to Appendix D of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NOx, CO, and SOx. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NOx, CO, or SOx.

The proposed location is in a non-attainment area for the state's PM10 as well as federal and state PM2.5 thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM10 and PM2.5.

Rule 2410 Prevention of Significant Deterioration

As shown in Section VII.C.9 above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

Rule 2520 Federally Mandated Operating Permits

Since this facility's potential emissions do not exceed any major source thresholds of Rule 2201, this facility is not a major source, and Rule 2520 does not apply.

Rule 4001 New Source Performance Standards (NSPS)

New Source Performance Standards (NSPS) (Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR)) are federal air pollution control standards authorized by Section 111 of the Clean Air Act and promulgated by US EPA. By default, US EPA retains authority to administer and enforce NSPS unless US EPA delegates this authority to a state or local agency. District Rule 4001 incorporates those NSPS that US EPA has delegated to the District. In addition, for sources with Title V permits, the District acts as the administrator for all NSPS, regardless of the delegation status of the specific NSPS in Rule 4001.

This engine may be an affected facility under 40 CFR Part 60, Subpart IIII; however, US EPA has not delegated this NSPS to the District nor does the facility have a Title V permit. Therefore, since the District does not have the authority to administer or enforce this NSPS, no further discussion of this NSPS is required.

No other NSPS apply to this engine; therefore, no further discussion of NSPS is required.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

National Emission Standards for Hazardous Air Pollutants (NESHAP) (Part 61 and Part 63, Chapter 1, Subchapter C, Title 40, Code of Federal Regulations (CFR)) are federal standards for the control of hazardous air pollutants (HAP) authorized by Section 112 of the Clean Air Act and promulgated by US EPA. By default, US EPA retains authority to administer and enforce NESHAP unless US EPA delegates this authority to a state or local agency. District Rule 4002 incorporates those NESHAP that US EPA has delegated to the District. In addition, for sources with Title V permits, the District acts as the administrator for all NESHAP, regardless of the delegation status of the specific NESHAP in Rule 4002.

However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to emergency IC engines; therefore, no further discussion of NESHAP is required.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). As the IC engine is fired solely on diesel, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Also, based on past inspections of the facility continued compliance is expected.

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

California Health & Safety Code 41700 (General Limitations)

CH&SC Section 41700 states that except as otherwise provided in CH&SC Section 41705, a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property.

The District's health Risk Management Review (RMR) program and policies assist with demonstrating compliance with the aforementioned CH&SC requirements. One of the RMR program goals is to minimize the increase that new and modified stationary sources add to the existing toxic load and any potentially significant public health impacts associated with the release of those airborne toxic emissions. In order to achieve this goal, the District performs a Health Risk Assessment (HRA) to evaluate the health risk of any proposed stationary source ATC permitting project with a potential increase in air toxics emissions. Projects that may cause an increase in hourly, daily, or annual potential to emit of air toxics or projects that could increase the public exposure to air toxics undergo this analysis to ensure the possible adverse health risk on nearby residents or businesses, including the cumulative health risk from past projects dating back to the adoption of the program, does not exceed specified significance levels.

The District's risk management policies are APR 1905 (Risk Management Policy for Permitting New and Modified Sources) and APR 1906 (Framework for Performing Health Risk Assessments). Under District policy, significance levels are established for cancer risk (20 lifetime cases per million population) and acute and chronic risks (hazard index not greater than 1.0). The hazard index represents a ratio of the modeled air toxics concentration(s) at the most impacted receptor divided by the reference exposure level (REL), below which no adverse health effects are expected, even for sensitive individuals). The policy also requires Best Available Control Technology for toxics (TBACT) for emission units that have the potential to cause a greater than *de minimus* increase in cancer risk (equal to or greater than 1.0 case per million population).

The potential health risk from the proposed project is below all established significance thresholds; therefore, the project is approvable under District RMR Policies. See Health Risk Assessment Summary attached as Appendix D to this application review for further detail.

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

$$0.02 \quad \frac{g}{hp \cdot hr} \times \frac{1\,hp \cdot hr}{2{,}542.5\,Btu} \times \frac{10^6\,Btu}{9{,}051\,dscf} \times \frac{0.35\,Btu_{out}}{1\,Btu_{in}} \times \frac{15.43\,grain}{g} = \quad 0.005 \quad \frac{grain}{dscf}$$

Since 0.005 grain/dscf is less than 0.1 grain/dscf, compliance with this rule is expected.

Therefore, compliance is expected and the following condition will be listed on the ATC as a mechanism to ensure compliance:

- {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

Rule 4701 Internal Combustion Engines - Phase 1

The purpose of this rule is to limit the emissions of nitrogen oxides (NOx), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines. Except as provided in Section 4.0, the provisions of this rule apply to any internal combustion engine, rated greater than 50 bhp, that requires a PTO.

The proposed engine is also subject to District Rule 4702, Internal Combustion Engines. Since emissions limits of District Rule 4702 and all other requirements are equivalent or more stringent than District Rule 4701 requirements for emergency engines, compliance with District Rule 4702 requirements will satisfy requirements of District Rule 4701.

Rule 4702 Internal Combustion Engines

Emergency standby engines are subject to District Rule 4702 requirements. Emergency standby engines are defined in Section 3.0 of District Rule 4702 as follows:

3.15 Emergency Standby Engine: an internal combustion engine which operates as a temporary replacement for primary mechanical or electrical power during an unscheduled outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the operator. An engine shall be considered to be an emergency standby engine if it is used only for the following purposes: (1) periodic maintenance, periodic readiness testing, or readiness testing during and after repair work; (2) unscheduled outages, or to supply power while maintenance is performed or repairs are made to the primary power supply; and (3) if it is limited to operate 100 hours or less per calendar year for non-emergency purposes. An engine shall not be considered to be an emergency standby engine if it is used: (1) to reduce the demand for electrical power when normal electrical power line service has not failed, or (2) to produce power for the utility electrical distribution system, or (3) in conjunction with a voluntary utility demand reduction program or interruptible power contract.

Emergency standby engines cannot be used to reduce the demand for electrical power when normal electrical power line service has not failed, or to produce power for the electrical distribution system, or in conjunction with a voluntary utility demand reduction program or interruptible power contract. The following conditions will be included on the permit:

- {3807} An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702 and 17 CCR 93115]

- {3808} This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702 and 17 CCR 93115]

The 100 hour requirement is less stringent than the Air Toxic Control Measure operating limitations for emergency standby engines. Therefore, compliance with the applicable Air Toxic Control Measure requirements ensures compliance with the 100 hour requirement.

Operation of emergency standby engines are limited to 100 hours or less per calendar year for non-emergency purposes. The Air Toxic Control Measure for Stationary Compression Ignition Engines (Stationary ATCM) limits this engine's maintenance and testing to 50 hours/year; therefore, compliance is expected. The following condition will be included on the permit:

- {4920} This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201, 4102, and 4702, and 17 CCR 93115]

The following exemption in Section 4.2 of District Rule 4702 applies to emergency standby engines:

4.2 Except for the requirements of Section 5.10 and Section 6.2.3, the requirements of this rule shall not apply to:

> 4.2.1 An emergency standby engine as defined in Section 3.0 of this rule, and provided that it is operated with a nonresettable elapsed operating time meter. In lieu of a nonresettable time meter, the owner of an emergency engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.
>
> Pursuant to the exemption in Section 4.2, the following requirements of Section 5.10 are applicable to emergency standby engines

Section 5.10 requires the owner to:

5.10.2 Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.

5.10.3 Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.

5.10.4 Install and operate a nonresettable elapsed operating time meter.

> 5.10.4.1 In lieu of installing a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and is allowed by Permit-to-Operate or Permit-Exempt Equipment Registration condition.
>
> 5.10.4.2 The operator shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.

Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier. The following condition will be included on the permit:

- {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]

Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier. The following condition will be included on the permit:

- {3478} During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]

Install and operate a nonresettable elapsed time meter. In lieu of installing a nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and EPA and is allowed by Permit-to-Operate condition. The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions. The following condition will be included on the permit:

- {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]

The exemption in Rule 4702 Section 4.2 for emergency standby engines requires the engines to comply with Section 6.2.3, shown below.

6.2.3 An owner claiming an exemption under Section 4.2 or Section 4.3 shall maintain annual operating records. This information shall be retained for at least five years, shall be readily available, and provided to the APCO upon request. The records shall include, but are not limited to, the following:

6.2.3.1 Total hours of operation,

6.2.3.2 The type of fuel used,

6.2.3.3 The purpose for operating the engine,

6.2.3.4 For emergency standby engines, all hours of non-emergency and emergency operation shall be reported, and

6.2.3.5 Other support documentation necessary to demonstrate claim to the exemption.

Records of the total hours of operation, type of fuel used, purpose for operating the engine, all hours of non-emergency and emergency operation, and other support documentation must be maintained. All records shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request. The following conditions will be included on the permit:

- {3496} The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 2201 and 4702 and 17 CCR 93115]

- {4263} The permittee shall maintain monthly records of the type of fuel purchased. [District Rules 2201 and 4702 and 17 CCR 93115]

- {3475} All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702 and 17 CCR 93115]

Rule 4801 Sulfur Compounds

Rule 4801 requires that sulfur compound emissions (as SO_2) shall not exceed 0.2% by volume. Using the ideal gas equation, the sulfur compound emissions are calculated as follows:

Volume SO_2 = (n x R x T) ÷ P
n = moles SO_2
T (standard temperature) = 60 °F or 520 °R
R (universal gas constant) = $\frac{10.73\,\text{psi}\cdot\text{ft}^3}{\text{lb}\cdot\text{mol}\cdot{}^\circ\text{R}}$

$$\frac{0.000015\,lb-S}{lb-fuel}\times\frac{7.1\,\text{lb}}{\text{gal}}\times\frac{64\,\text{lb}-\text{SO}_2}{32\,\text{lb}-\text{S}}\times\frac{1\,\text{MMBtu}}{9{,}051\,\text{scf}}\times\frac{1\,\text{gal}}{0.137\,\text{MMBtu}}\times\frac{\text{lb}-\text{mol}}{64\,\text{lb}-\text{SO}_2}\times\frac{10.73\,\text{psi}-\text{ft}^3}{\text{lb}-\text{mol}-{}^\circ\text{R}}\times\frac{520{}^\circ\text{R}}{14.7\,\text{psi}}\times 1{,}000{,}000 = \quad 1.0\ \text{ppmv}$$

Since 1.0 ppmv is ≤ 2,000 ppmv, this engine is expected to comply with Rule 4801. Therefore, the following condition will be listed on the ATC as a mechanism to ensure compliance:

- {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

Title 17 California Code of Regulations (CCR), Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines

The following requirements apply to new engines (those installed after 1/1/05):

Title 17 CCR Section 93115 Requirements for New Emergency IC Engines Powering Electrical Generators	Proposed Method of Compliance with Title 17 CCR Section 93115 Requirements
Emergency engine(s) must be fired on CARB diesel fuel, or an approved alternative diesel fuel.	The applicant has proposed the use of CARB certified diesel fuel. The proposed permit condition, requiring the use of CARB certified diesel fuel, is included on the permit. • {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
The engine(s) must meet the emission standards in Table 1 of the ATCM for the specific power rating and model year of the proposed engine.	The applicant has proposed the use of an engine that is certified to the latest EPA Tier Certification standards for the applicable horsepower range, guaranteeing compliance with the emission standards of the ATCM. Additionally, the proposed diesel PM emissions rate is less than or equal to 0.15 g/bhp-hr.
The engine may not be operated more than 50 hours per year for maintenance and testing purposes unless the PM emissions are $\leq$ 0.01 g/bhp-hr, then the engine is allowed 100 hours per year. Emissions from this engine are certified at 0.02 g/bhp-hr, therefore the engine is allowed 50 hours.	The following conditions will be included on the permit: • {4772} Emissions from this IC engine shall not exceed 0.02 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115] • {4920} This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201, 4102, and 4702, and 17 CCR 93115]
A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed upon engine installation, or by no later than January 1, 2005, on all engines subject to all or part of the requirements of sections 93115.6, 93115.7, or 93115.8(a) unless the District	The following condition will be included on the permit: • {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and

determines on a case-by-case basis that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history.	the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
An owner or operator shall maintain monthly records of the following: emergency use hours of operation; maintenance and testing hours of operation; hours of operation for emission testing; initial start-up testing hours; hours of operation for all other uses; and the type of fuel used. All records shall be retained for a minimum of 36 months.	The following condition will be included on the permit: • {3496} The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]

California Environmental Quality Act (CEQA)

As demonstrated in this evaluation, the project will not result in any significant impacts; therefore, the project is exempt per the common sense exemption that CEQA applies only to projects that have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC S-2893-2-0 subject to the permit conditions on the attached draft ATC in Appendix A.

X. Billing Information

Annual Permit Fees			
Permit Number	**Fee Schedule**	**Fee Description**	**Annual Fee**
S-2893-2-0	3020-10-G	5,647 BHP IC Engine	$1,170

XI. Appendices

A*:* Draft ATC
B: BACT Guideline
C: BACT Analysis
D: HRA Summary
E: Emission Data Sheet & DPF Certified Letter
F: Quarterly Net Emissions Change

APPENDIX A
Draft ATC

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-2893-2-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PACIFIC PIPELINE SYSTEM INC
MAILING ADDRESS: 19430 BEECH AVE
SHAFTER, CA 93314

LOCATION: GRAPEVINE
RANCHO CASTAIC, CA

EQUIPMENT DESCRIPTION:
5,647 BHP (INTERMITTENT) CATERPILLAR MODEL C175-20 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE WITH SCR AND A CARB CERTIFIED DPF POWERING AN ELECTRICAL GENERATOR

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
6. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
7. Emissions from this IC engine shall not exceed any of the following limits: 0.5 g-NOx/bhp-hr, 2.6 g-CO/bhp-hr, or 0.14 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
8. Emissions from this IC engine shall not exceed 0.02 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

DRAFT

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Brian Clements, Director of Permit Services

S-2893-2-0 : 5/13/2026 11:38:12 AM -- LAFOREC : Joint Inspection NOT Required

9. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]

10. {3478} During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]

11. {3807} An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702 and 17 CCR 93115]

12. {3808} This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702 and 17 CCR 93115]

13. {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]

14. {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

15. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 2201 and 4702 and 17 CCR 93115]

16. {4920} This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201, 4102, and 4702, and 17 CCR 93115]

17. Initial source testing of the engine shall be conducted within 60 days of initial start-up of the engine to demonstrate compliance with the NOx, CO and VOC emission limits. [District Rule 2201]

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. An appropriately-sized resistance load bank (or equivalent) shall be used during the emissions source testing to ensure the engine is operating at load conditions representative of normal operations [District Rule 1081 and 2201]

19. The percent load, engine output, and stack gas volumetric flow rate shall be used to convert engine emissions to a mass basis (g/bhp-hr). [District Rules 1081 and 2201]

20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. NOx, CO and VOC concentrations shall be reported in g/bhp-hr. [District Rules 1081 and 2201]

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100. [District Rules 1081 and 2201]

22. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every 12 months using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive exceedances of the emission limit(s) are observed during monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule [District Rule 2201]

23. The permittee shall demonstrate the operating horsepower at the source tested power level using any method approved by the APCO and EPA. The permittee shall document typical operating parameters, loading, and duty cycle during the initial source test and subsequent monitoring. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

24. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201]

25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201]

26. The diesel particulate filter (DPF) shall be operated and maintained according to the DPF manufacturer's specifications, procedures, and recommended inspection and cleaning frequencies [District Rule 2201]

27. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with the permit limits. [District Rules 1070 and 2201 and 4702 and 17 CCR 93115]

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) the stack volumetric flow rate, in standard cubic meter per hour, dry basis, (4) the emission rate of NOx and CO, converted to g/bhp-hr (5) make and model of exhaust gas analyzer, (6) exhaust gas analyzer calibration records, and (7) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 1070 and 2201]

29. The permittee shall maintain records of: (1) the date and time of DPF inspection, and (2) the date and time of DPF cleaning. [District Rule 1070 and 2201]

30. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702 and 17 CCR 93115]

APPENDIX B
BACT Guideline

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 3.1.1*

Last Update: 04/29/2022

Emergency Diesel-Fired IC Engine > 50 bhp Powering an Electrical Generator

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	EPA Tier 4 Final certification level or equivalent for applicable horsepower range**		
SOx	Very low sulfur diesel fuel (15 ppmw sulfur or less)		
PM10	EPA Tier 4 Final certification level or equivalent for applicable horsepower range**		
NOx	EPA Tier 4 Final certification level or equivalent for applicable horsepower range**		
CO	EPA Tier 4 Final certification level or equivalent for applicable horsepower range**		

**The following emission levels are equivalent to the EPA Tier 4 Final certification levels:
50 - < 75 bhp: 3.5 g-(NOx + VOC)/bhp-hr, 0.02 g-PM/bhp-hr, 3.7 g-CO/bhp-hr
75 - < 175 bhp: 0.30 g-NOx/bhp-hr, 0.015 g-PM/bhp-hr, 3.7 g-CO/bhp-hr, 0.14 g-VOC/bhp-hr
175 - ≤ 750 bhp: 0.30 g-NOx/bhp-hr, 0.015 g-PM/bhp-hr, 2.6 g-CO/bhp-hr, 0.14 g-VOC/bhp-hr
> 750 bhp: 0.50 g-NOx/bhp-hr, 0.02 g-PM/bhp-hr, 2.6 g-CO/bhp-hr, 0.14 g-VOC/bhp-hr

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

APPENDIX C
BACT Analysis

Top Down BACT Analysis for the Emergency IC Engine

This application was deemed complete on December 18, 2025. Therefore, BACT Guideline 3.1.1 (April 29, 2022) was in effect at the time the project was deemed complete and will be used for this emergency diesel IC engine. In accordance with the District BACT policy, information from that guideline will be utilized without further analysis.

1. BACT Analysis for NOx and VOC Emissions:

a. Step 1 - Identify all control technologies

BACT Guideline 3.1.1 identifies only the following option:

- NOx: EPA Tier 4 Final certification or equivalent for applicable horsepower range*
- VOC: EPA Tier 4 Final certification or equivalent for applicable horsepower range*

*> 750 bhp: 0.50 g-NOx/bhp-hr, 0.02 g-PM/bhp-hr, 2.6 g-CO/bhp-hr, 0.14 g VOC/bhp-hr

The Tier 2 IC engine will be retrofitted with a SCR system and also a CARB Certified DPF. The unit will have to source test to prove that the unit can meet these emission standards for this size of an engine. With these controls, the unit will meet the BACT Tier 4 Final emission requirements.

b. Step 2 - Eliminate technologically infeasible options

The control option listed in Step 1 is not technologically infeasible.

c. Step 3 - Rank remaining options by control effectiveness

Ranking is not necessary since there is only one control option listed in Step 1.

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the only control option remaining under consideration. Therefore, a cost effectiveness analysis is not required.

e. Step 5 - Select BACT

BACT for NOx and VOX is emissions of 0.50 g/hp-hr and 0.14g/hp-hr. The applicant is proposing such a unit that meets the Tier 4 final emission requirements. Therefore, BACT will be satisfied.

2. BACT Analysis for PM_{10} Emissions:

a. Step 1 - Identify all control technologies

BACT Guideline 3.1.1 identifies only the following option:

- PM10: EPA Tier 4 Final certification or equivalent for applicable horsepower range*

*> 750 bhp: 0.50 g-NOx/bhp-hr, 0.02 g-PM/bhp-hr, 2.6 g-CO/bhp-hr, 0.14 g VOC/bhp-hr

The latest EPA Tier Certification level for an engine of the proposed model year and horsepower rating is Tier 4F. Refer to the Top-Down BACT analysis for NOx for a discussion regarding the determination of the EPA Tier level to be considered.

The Tier 2 IC engine will be retrofitted with a SCR system and also a CARB Certified DPF. The unit will have to source test to prove that the unit can meet these emission standards for this size of an engine. With these controls, the unit will meet the BACT Tier 4 final emission requirements.

b. Step 2 - Eliminate technologically infeasible options

The control option listed in Step 1 is not technologically infeasible.

c. Step 3 - Rank remaining options by control effectiveness

No ranking needs to be done because there is only one control option listed in Step 1.

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the only control option remaining under consideration. Therefore, a cost effectiveness analysis is not required.

e. Step 5 - Select BACT

BACT for PM10 is emissions of 0.02 g/hp-hr. The applicant is proposing an engine that meets this requirement. Therefore, BACT will be satisfied.

APPENDIX D
HRA Summary

San Joaquin Valley Air Pollution Control District

Health Risk Assessment Summary

Facility Name: PACIFIC PIPELINE SYSTEM INC
Facility ID, Project #: S-2893, S-1254473

This Health Risk Assessment (HRA) Summary is provided as an attachment to the Engineering Evaluation supporting the Authority to Construct permitting project.

1. Overview

Under the District RMR policies (APR-1905 and APR-1906), the potential public health impacts associated with air toxic emissions from the proposed project were evaluated. This review ensures the project complies with the District's health risk policies and that the evaluation is protective of nearby residents, workers, and sensitive populations such as schools and homes.

Using conservative, health-protective assumptions and state-recommended risk assessment methods, the District determined that the project's potential health risks are **below established significance thresholds**.

The RMR process includes:

a) Characterizing and estimating the project's potential air emissions from pollutants with associated health risk values as defined by the California Office of Environmental Health Hazard Assessment (OEHHA).

b) Performing a screening level "Prioritization" using the prioritization methodology outlined in the California Air Pollution Control Officers Association (CAPCOA) Facility Prioritization Guidelines. A facility's priority status is determined using the prioritization thresholds listed in District Policy APR-1905. If the post-project cumulative facility increase in prioritization score is equal to or less than 1, the project is approvable with no further assessment. If a facility's total prioritization score exceeds 1, then an HRA is required.

c) If applicable, performing an HRA using air dispersion modeling and risk assessment default inputs listed in District Policy APR-1906 and the District's Modeling Guidance. These methods use conservative and health protective assumptions consistent with statewide risk assessment guidance and are designed for protection of public health when estimating potential impacts.

d) Determine whether the project triggers Toxic Best Available Control Technology (T-BACT). For new or modified emission units that exceed a cancer risk of one in a million, T-BACT must be implemented for the permit.

2. Executive Summary

The post-project cumulative facility prioritization score was greater than one. Therefore, an HRA was required. Based on the results of the health risk assessment (See Health Risk Evaluation Results table below), the District determined that the project's potential health impacts are **below established significance thresholds.**

Table 1. Health Risk Evaluation Results

Permit #	Maximum Individual Cancer Risk (in a million)	Chronic Hazard Index	Acute Hazard Index
S-2893-2-0	6.70E-09	0.00	0.00
Incremental Project Totals	6.70E-09	0.00	0.00
Post-Project Cumulative Facility Totals	6.70E-09	0.00	0.00
Significance Thresholds	≤ 20	< 1	< 1
Below Significance Threshold	**Yes**	**Yes**	**Yes**

The project is approved **without Toxic Best Available Control Technology (T-BACT).**

3. Air Toxic Emissions

Air toxics emissions for this project were calculated using the following methods:

- Particulate matter (PM10) emissions for the proposed diesel internal combustion engine were provided by the Permit Engineer. Per OEHHA guidance, all diesel exhaust PM10 is evaluated as diesel particulate matter (CAS# 9901).

Table 2. Estimated Potential Air Toxics from Project

Pollutant	Hourly Emissions (lbs/hr)	Annual Emissions (lbs/yr)
DieselExhPM	2.49E-01	1.20E+01

4. Health Risk Assessment (HRA) and Modeling Details

Since the facility's cumulative prioritization score was greater than 1, pursuant to District risk policies, a health risk assessment was required. The air dispersion modeling and health risk assessment were performed using the default settings outlined in District Policy APR-1906 and the District's Modeling Guidance. The HRA included (as appropriate):

- Potential air toxics increases from the proposed project,
- State-approved air dispersion modeling to predict how pollutants spread and disperse in the environment,

- Evaluating potential exposure at nearby residences, workplaces, and other sensitive locations,
- Applying health risk values developed by the California Office of Environmental Health Hazard Assessment (OEHHA),
- Using conservative assumptions including operation at maximum permitted emission rates and conservative receptor exposure assumptions to ensure public health protection

These methods are consistent with District policy and statewide risk assessment guidance and are designed for protection of public health when estimating potential impacts. The project's specific modeling parameters are identified below.

Meteorological Data

Consistent with APR-1906, a refined dispersion modeling analysis was performed using the U.SD. EPA's AERMOD model. Detailed stack parameters and site-specific meteorological data for 08-11 from Arvin (rural dispersion coefficient selected) were used to predict how emissions disperse and impact surrounding receptors. The selected meteorological dataset represents the nearest representative station to the project site and is consistent with District modeling guidance. The modeled concentrations were then evaluated using state-approved health risk factors to calculate cancer risk and acute and chronic indices for the project.

Air Dispersion Modeling Parameters

The AERMOD model is utilized for air dispersion modeling for HRA and AAQA purposes. The parameters outlined below were used for the analysis:

Table 3. Point Source Parameters

Unit ID	Unit Description	Release Height (m)	Temp. (°K)	Exit Velocity (m/sec)	Stack Diameter (m)	Vertical / Horizontal / Capped
2	5,647 BHP DICE	6.10	762	149.92	0.36	Vertical

5. Permit Requirements Based on HRA

To ensure that the potential risk does not exceed the levels evaluated in the risk assessment and that health risks remain below established significance thresholds, the following shall be included as permit requirements:

Unit # 2-0

1. The PM_{10} emissions rate shall not exceed 0.02 g/bhp-hr based on US EPA certification using ISO 8178 test procedure.
2. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction.
3. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of

the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year.

San Joaquin Valley Air Pollution Control District

Ambient Air Quality Analysis Summary

Facility Name: PACIFIC PIPELINE SYSTEM INC
Facility ID, Project #: S-2893, S-1254473

1. Overview

The District evaluated the proposed project's potential impact on the National Ambient Air Quality Standard (NAAQS) and/or California Ambient Air Quality Standard (CAAQS) in accordance with District Policy APR 1925 (Policy for District Rule 2201 AAQA Modeling) and EPA's Guideline for Air Quality Modeling (Appendix W of 40 CFR Part 51).

The District applies a progressive three level approach to perform AAQAs. The first level (Level 1) uses a very conservative approach. If this analysis indicates a likely exceedance of an AAQS or Significant Impact Level (SIL), the analysis proceeds to the second level (Level 2) which implements a more refined approach. For the 1-hour NO_2 standard, there is also a third level that can be implemented if the Level 2 analysis indicates a likely exceedance of an AAQS or SIL. This progressive framework ensures that potential impacts are evaluated conservatively at the screening stage and refined as necessary to provide a thorough and health-protective assessment.

The modeling analysis predicts the maximum ground-level air quality impacts using the appropriate emissions for each standard's averaging period. Required model inputs for a refined AAQA include background ambient air quality data, land characteristics, meteorological inputs, a receptor grid, and detailed source parameters, including emission rates.

2. Ambient Air Quality Analysis (AAQA) Results Summary

Pollutant	Air Quality Standard (State/Federal)				
	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass	N/A	Pass	N/A	N/A
NO_x	Pass	N/A	N/A	N/A	Pass
SO_x	Pass	N/A	N/A	Pass	Pass
PM10	N/A	N/A	N/A	Pass	Pass
PM2.5	N/A	N/A	N/A	Pass	Pass
Ozone	Pass	N/A	Pass	N/A	N/A

The project is **not expected to cause or contribute to an exceedance of any applicable NAAQS or CAAQS, nor does it exceed applicable Significant Impact Levels (SILs).**

AAQA Clarifications

- The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2) unless otherwise noted below.

- Modeled PM10 concentrations were below the District SIL for non-fugitive sources of 1 µg/m3 for the annual concentration.
- Modeled PM2.5 concentrations were below the District SIL for non-fugitive sources of 0.13 µg/m3 for the annual concentration.

AAQA Monitoring Site

Ambient air concentrations of criteria pollutants are measured at monitoring stations throughout the San Joaquin Valley. Monitoring stations may not measure all necessary pollutants, so background data may need to be collected from multiple sources. The following monitoring stations were used for this evaluation:

Monitoring Stations				
Pollutant	**Station Name**	**County**	**City**	**Measurement Year**
CO	Bakersfield-Muni	Kern	Bakersfield	2023
NOx	Bakersfield-California	Kern	Bakersfield	2023
PM10	Bakersfield-California	Kern	Bakersfield	2023
PM2.5	Bakersfield-California	Kern	Bakersfield	2023
SOx	Fresno - Garland	Fresno	Fresno	2023

3. Proposed Permit Conditions

To ensure that the emissions do not exceed any established ambient air quality standards, the following shall be included as permit requirements:

Unit # 2-0

1. The PM_{10} emissions rate shall not exceed 0.02 g/bhp-hr based on US EPA certification using ISO 8178 test procedure.
2. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction.
3. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year.

4. Meteorological Data & Air Dispersion Modeling Parameters

Dispersion modeling was performed using the U.S. EPA's AERMOD model. Detailed stack parameters and site-specific meteorological data were used to predict how emissions disperse. The meteorological data and modeling parameters utilized for the project HRA were also utilized for this AAQA analysis.

APPENDIX E
Emission Data Sheet & DPF Certified Letter

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER DE-14-005-08

Pursuant to the authority vested in the California Air Resources Board (CARB) by Health and Safety Code, Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code section 39515 and 39616 and Executive Order G-14-012;

This action relates to Verification under sections 2700 through 2711 of Title 13 of the California Code of Regulations (CCR):

Miratech Group, LLC (Miratech)
MIRATECH® LTR™ DOC/DPF

CARB has reviewed Miratech's request for verification of the MIRATECH® LTR™ DOC/DPF. Based on an evaluation of the data provided, and pursuant to the terms and conditions specified below, the Executive Officer of CARB hereby finds that the MIRATECH® LTR™ DOC/DPF reduces emissions of diesel particulate matter (PM) consistent with a Level 3 device (greater than or equal to 85% reductions) (CCR, title 13, sections 2702 (f) and (g) and section 2708) and complies with the CARB January 1, 2009, nitrogen dioxide (NO_2) limit (CCR, title 13, section 2702 (f) and section 2706 (a)). Accordingly, the Executive Officer determines that the MIRATECH® LTR™ DOC/DPF merits verification as a Level 3 Plus system, for use with stationary emergency standby generators using engine families listed in Attachment 1.

This verification is subject to the following terms and conditions:

- The engine must be used in a stationary application associated with emergency standby generators.
- The engine must be certified for use in California or certified by the United States Environmental Protection Agency and must be in its original certified configuration.
- The engine must be:
    - Rated greater than or equal to 50 horsepower (hp) and certified to Tier 1, Tier 2, Tier 3, or Tier 4 Alt 20% oxides of nitrogen (NO_x) and PM standards, or;
    - Certified to Tier 4i standards with a rated hp between 50 and 75, or over 750.
- The engines are model years 1996 or newer and must be certified off-road or stationary diesel engine meeting 0.22 grams per brake horsepower hour (g/bhp-hr) PM or less based on certification or In-Use emissions testing (as tested on an appropriate steady-state certification cycle outlined in the CARB off-road regulations, similar to ISO 8178 D2).
- The engine must not employ exhaust gas recirculation (EGR).

- The engine must not have a pre-existing diesel oxidation catalyst (DOC).
- The engine must not have a pre-existing diesel particulate filter (DPF).
- The engine must not have a pre-existing selective catalytic reduction.
- The engine must be four-stroke.
- The engine can be turbocharged or naturally-aspirated.
- Miratech must review actual operating conditions (duty cycle, baseline emissions, and engine exhaust backpressure and temperature profiles, and other pre-installation compatibility assessments as required in CCR, title 13, section 2706 (t) prior to retrofitting an engine with the MIRATECH® LTR™ DOC/DPF to ensure compatibility.
- The engine should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer.
- The MIRATECH® LTR™ DOC/DPF must not be operated with fuel additives, as defined in section CCR, title 13, section 2701, unless explicitly verified for use with fuel additive(s).

The other terms and conditions are specified below.

Table 1: Conditions for the MIRATECH® LTR™ DOC/DPF

Parameter	Value
Application	Stationary Emergency Standby Power Generation
Size Range	Diesel engines rated greater than or equal to 50 hp
Engine Type	Diesel, with or without turbocharger, certified to 0.22 g/bhp-hr or less of PM.
Minimum Exhaust Temperature for Filter Regeneration	260° Celsius / 500° Fahrenheit. At 550° Fahrenheit, regeneration takes approximately 45 minutes.
Maximum Consecutive Minutes Operating Below Passive Regeneration Temperature	720 Minutes
Number of Cold Start and 40 minute Idle Sessions before Regeneration Required	18
Number of Hours of Operation Before Cleaning of Filter Required	Application specific. 2000 hours typical.
Fuel	California diesel fuel with less than or equal to 15 ppm sulfur or a biodiesel blend provided that the biodiesel portion of the blend complies with ASTM D6751, the diesel portion of the blend complies with CCR, title 13, sections 2281 and 2282, and the blend contains no more than 20% biodiesel by volume.
PM Verification Level	Level 3 Plus, Mark 5 Verification: PM - at least 85% reduction NO_2 - meets January 2009 limit NO_x - at least 85% reduction

This Executive Order is valid provided that installation instructions for MIRATECH® LTR™ DOC/DPF do not recommend tuning the engine to specifications different from those of the engine manufacturer. As such, no engine modifications are permitted without CARB and manufacturer approval.

The MIRATECH® LTR™ DOC/DPF is a passive diesel exhaust filter system. It consists of a filter housing, DOC, DPF, and monitoring system (backpressure sensor, temperature sensor, and a display unit that provides warnings when the filter becomes clogged or damaged).

Changes made to the design or operating conditions of MIRATECH® LTR™ DOC/DPF, as exempted by CARB, which adversely affect the performance of the engine's pollution control system, shall invalidate this Executive Order.

No changes are permitted to the MIRATECH® LTR™ DOC/DPF, and the product must not be used with any other systems without CARB evaluation and approval. CARB must be notified in writing of any changes to any part of MIRATECH® LTR™ DOC/DPF. Failure to do so shall invalidate this Executive Order.

No person shall alter, physically disable, disconnect, bypass, or tamper with an installed CARB verified diesel emissions control strategy, as outlined in CCR, title 13, section 2711(e). Should CARB become aware that a design feature of a verified device is altered, physically disabled, disconnected, bypassed, or tampered on multiple units by independent persons, Miratech will be responsible to propose a design modification and recall plan to the Executive Officer to minimize existing and potential for future tampering of the verified device.

Marketing of the MIRATECH® LTR™ DOC/DPF using identification other than that shown in the Executive Order or for an application other than that listed in the Executive Order shall be prohibited unless prior approval is obtained from CARB.

As specified in the Diesel Emissions Control Strategy Verification Procedure (CCR, title 13, section 2706 (j)), CARB assigns each Diesel Emissions Control Strategy a family name. The designated family name for the verification as outlined above is:

CA/MES/2014/PM3+/N00/ST/DPF01

This designated family name must be used in reference to this Executive Order as part of the system labeling requirement. Labels attached to the MIRATECH® LTR™ DOC/DPF and the engine must be identical.

Proper engine maintenance is critical for the proper functioning of the diesel emissions control strategy. The owner of the equipment on which the diesel emissions control strategy is installed is strongly advised to adhere to all good engine maintenance practices. Failure to document proper engine maintenance, including keeping records of the engine's oil consumption, may be grounds for denial of a warranty claim.

The terms and conditions of this Executive Order must be satisfied regardless of where the system is sold in order for the system to be considered verified. Systems sold as verified, or

which carry a CARB-approved label, must satisfy all the terms and conditions of this Executive Order.

Additionally, as stated in the Diesel Emissions Control Strategy Verification Procedure, Miratech is responsible for honoring the record keeping requirements (CCR, title 13, section 2702), their warranty (CCR, title 13, section 2707), conducting In-Use compliance testing (CCR, title 13, section 2709), and complying with the system labeling requirements (CCR, title 13, section 2706 (j)).

In addition, CARB reserves the right in the future to review this Executive Order and verification provided herein to assure that the verified add-on or modified part continues to meet the standards and procedures of CCR, title 13, section 2222, et seq and CCR, title 13, sections 2700 through 2711.

Systems verified under this Executive Order shall conform to all applicable California emissions regulations. This Executive Order does not release Miratech from complying with all other applicable regulations.

Violation of any of the above conditions shall be grounds for the revocation of this Executive Order.

Executive Order DE-14-005-07 is hereby superseded and is of no further force and effect.

Executed at Sacramento, California, this 10th day of July 2025.

Ajay Mangat, Assistant Chief, Transportation and Toxics Division

Attachment 1: Verified MIRATECH® LTR™ DOC/DPF

CATERPILLAR

Engine Emissions Data

For Emissions / Certification feedback and questions, please submit a ticket via our ERC Request Portal

This emission data is Caterpillar's best estimate for this rating. If actual emissions are required then an emission test needs to be run on your engine.

Serial Number (Machine)	
Serial Number (Engine)	**BXR01232**
Sales Model	C175-20
Regulatory Build Date	30-JUL-2015
As Shipped Data	
Engine Arrangement Number	3442955
Certification Arrangement	
Test Spec Number	4183088
Regulatory Status	EPA Emergency Stationary at constant speed
Labeled Model Year	2015
EPA Family Code	FCPXL106.NZS
As-Shipped Flash File	4619782
CORR FL Power at RPM	5,760 HP (4,295.0 KW)1800 RPM
Advertised Power	5,647 HP 1,800RPM
Total Displacement	106. L

Disclaimer: The information provided has been compiled from third party sources and is accurate to the best of Caterpillar's knowledge. However, Caterpillar cannot guarantee the accuracy, completeness, or validity of the information and is not liable for any errors or omissions contained therein. All information provided should be independently verified and confirmed, including by examining the emissions label located on the engine.

Need emission replacement label? Click here!

Caterpillar Confidential: **Green**
Content Owner: Commercial Processes Division
Web Master(s): PSG Web Based Systems Support
Current Date: 11/10/2025, 9:31:06 AM

Application & Performance Warranty Data

Project Information

Site Location:	CA
Project Name:	AFE 110115 Grapevine
Application:	Standby Power
Number Of Engines:	1
Operating Hours per Year:	200

Engine Specifications

Engine Manufacturer:	Caterpillar
Model Number:	C175-20
Rated Speed:	1800 RPM
Type of Fuel:	Ultra-Low Sulfur Diesel (ULSD)
Type of Lube Oil:	1 wt% sulfated ash or less
Lube Oil Consumption:	0.1 % Fuel Consumption
Number of Exhaust Manifolds:	1

Engine Cycle Data

Load	Speed	Power	Exhaust Flow	Exhaust Temp.	Fuel Cons.	NO_x	CO	NMNEHC	PM_{10}	O_2	H_2O
%		*bhp*	*acfm (cfm)*	*° F*		*g/bhp-hr*	*g/bhp-hr*	*g/bhp-hr*	*g/bhp-hr*	*%*	*%*
100	Rated	5,646	31,548.7	911.6		6.09	0.68	0.04	0.04	9.6	12.5

Emission Data (100% Load)

Emission	Raw Engine Emissions						Target Outlet Emissions						Calculated Reduction
	g/bhp-hr	*tons/yr*	*ppmvd @ 15% O_2*	*ppmvd*	*g/kW-hr*	*lb/MW-hr*	*g/bhp-hr*	*tons/yr*	*ppmvd @ 15% O_2*	*ppmvd*	*g/kW-hr*	*lb/MW-hr*	
NO_x*	6.09	7.58	520	996	8.167	18	0.5	0.62	43	82	0.671	1.48	91.8%
CO	0.68	0.85	95	183	0.912	2.01	2.6	3.24	365	698	3.487	7.69	
NMNEHC**	0.04	0.05	10	19	0.054	0.12	0.14	0.17	34	66	0.188	0.41	
PM_{10}	0.04	0.05	13	25	0.054	0.12	0.02	0.03	7	14	0.03	0.07	45%
NH_3							0.04	0.05	10	19	0.058	0.13	

* MW referenced as NO_2

** MW referenced as CH_4. Propane in the exhaust shall not exceed 15% by volume of the NMHC compounds in the exhaust, excluding aldehydes. The 15% (vol.) shall be established on a wet basis, reported on a methane molecular weight basis. The measurement of exhaust NMHC composition shall be based upon EPA method 320 (FTIR), and shall exclude formaldehyde.

APPENDIX F
Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
PE2 = Post-Project Potential to Emit for each emissions unit, lb/qtr.
PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

Using the values in Sections VII.C.2 and VII.C.1 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 4 quarters/year
= XX lb/year ÷ 4 qtr/year
= XX lb Pollutant/qtr

$PE1_{quarterly}$=0 since new unit

Quarterly NEC [QNEC]			
Pollutant	**PE2 (lb/qtr)**	**PE1 (lb/qtr)**	**QNEC (lb/qtr)**
NOx	77.75	0	77.75
SOx	0.75	0	0.75
PM10	3	0	3
CO	404.5	0	404.5
VOC	21.75	0	21.75