



July 17, 2026

Kathy Macke
Walmart Distribution Center #8852
8725 Rosehill Rd, Ste 450
Lenexa, KS 66215

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: S-9378
Project Number: S-1262719

Dear Ms. Macke:

Enclosed for your review and comment is the District's analysis of Walmart Distribution Center #8852's application for an Authority to Construct for the installation of two (2) 919 horsepower Tier 4 Final certified diesel engines to provide emergency power in the event of an electrical outage, at 2701 S Driver Rd in Shafter, 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 Mr. Moises Amezcua of Permit Services at (661) 392-5616.

Sincerely,

Rodolfo Mendez

for Brian Clements
Director of Permit Services

BC:MA

Enclosures

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

Samir Sheikh
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San Joaquin Valley
San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review

Diesel-Fired Emergency Standby IC Engine

Facility Name:	Walmart Distribution Center #8852	Date:	June 23, 2026
Mailing Address:	8725 Rosehill Rd, Suite 450 Lenexa, KS 66215	Engineer:	Moises Amezcua
		Lead Engineer:	Marissa Mak

Facility Contact Person: Kathy Macke
Contact Telephone: 513-646-9800
Contact E-Mail: Kathy.Macke@aptim.com
Application #(s): S-9378-11-0, '-12-0
Project #: S-1262719
Date Deemed Complete: May 22, 2026

I. Proposal

Walmart Distribution Center #8852 has requested Authority to Construct (ATC) permits for the installation of two (2) 919 bhp intermittent diesel-fired emergency standby internal combustion (IC) engines each powering an electrical generator. The draft ATC(s) are 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 (4/16/26)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4701	Internal Combustion Engines – Phase I (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
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 2701 S Driver Road in Shafter, CA. 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

Each emergency standby engine powers an electrical generator. Other than emergency standby operation, each engine may be operated up to 50 hours per year for maintenance and testing purposes.

V. Equipment Listing

S-9378-11-0: 919 BHP INTERMITTENT VOLVO-PENTA MODEL TWD1683GE TIER 4F
CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE
POWERING AN ELECTRICAL GENERATOR

S-9378-12-0: 919 BHP INTERMITTENT VOLVO-PENTA MODEL TWD1683GE TIER 4F
CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE
POWERING AN ELECTRICAL GENERATOR

VI. Emission Control Technology Evaluation

The applicant has proposed to install a Tier 4F (final) certified diesel-fired IC engine that is fired on very low-sulfur diesel fuel.

The proposed engine meets the latest Tier Certification 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 D for a copy of the emissions data sheet and ARB executive order).

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

B. Emission Factors

For each new diesel-fired IC engine, the emissions factors for NO_x, CO, VOC, and PM₁₀ are provided by the applicant and are guaranteed by the engine manufacturer. The SO_x emission factor is calculated using the sulfur content in the diesel fuel (0.0015% sulfur).

Diesel-fired IC Engine Emission Factors		
Pollutant	g/bhp·hr	Source
NO _x	0.4996	Engine Manufacturer
*SO _x	0.0051	Mass Balance Equation Below
PM ₁₀	0.0224	Engine Manufacturer
CO	2.6100	Engine Manufacturer
VOC	0.1417	Engine Manufacturer

$$\frac{0.000015 \text{ lb} \cdot \text{S}}{\text{lb} \cdot \text{fuel}} \times \frac{7.1 \text{ lb} \cdot \text{fuel}}{\text{gallon}} \times \frac{2 \text{ lb} \cdot \text{SO}_2}{1 \text{ lb} \cdot \text{S}} \times \frac{1 \text{ gal}}{137,000 \text{ Btu}} \times \frac{1 \text{ hp input}}{0.35 \text{ hp output}} \times \frac{2,542.5 \text{ Btu}}{\text{hp} \cdot \text{hr}} \times \frac{453.6 \text{ g}}{\text{lb}} = 0.0051 \frac{\text{g} \cdot \text{SO}_x}{\text{bhp} \cdot \text{hr}}$$

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since these are new emissions units, PE1 = 0 for all pollutants.

2. Post-Project Potential to Emit (PE2)

The potential to emit for each engine is calculated as follows, and summarized in the table below:

$$\begin{aligned} PE_{\text{daily}} &= (\text{Emission Factor-Pollutant}) * (\text{Engine Rating}) * (\text{Daily Operating Schedule}) \\ &= (\text{Pounds-Pollutant/Day}) \end{aligned}$$

$$\begin{aligned} PE_{\text{annual}} &= (\text{Emission Factor-Pollutant}) * (\text{Engine Rating}) * (\text{Daily Operating Schedule}) \\ &= (\text{Pounds-Pollutant/Year}) \end{aligned}$$

$$\begin{aligned} PE2_{\text{NO}_x} &= (0.4996 \text{ g/bhp-hr}) * (919 \text{ bhp}) * (24 \text{ hr/day}) \\ &= 24.3 \text{ lb NO}_x/\text{day} \end{aligned}$$

$$\begin{aligned} &= (0.4996 \text{ g/bhp-hr}) * (919 \text{ bhp}) * (50 \text{ hr/yr}) \\ &= 51 \text{ lb NO}_x/\text{year} \end{aligned}$$

$$\begin{aligned} PE2_{\text{SO}_x} &= (0.0051 \text{ g/bhp-hr}) * (919 \text{ bhp}) * (24 \text{ hr/day}) \\ &= 0.2 \text{ lb SO}_x/\text{day} \end{aligned}$$

$$\begin{aligned} &= (0.0051 \text{ g/bhp-hr}) * (919 \text{ bhp}) * (50 \text{ hr/yr}) \\ &= 0 \text{ lb SO}_x/\text{year} \end{aligned}$$

$$\begin{aligned} PE2_{\text{PM}_{10}} &= (0.0224 \text{ g/bhp-hr}) * (919 \text{ bhp}) * (24 \text{ hr/day}) \\ &= 1.1 \text{ lb PM}_{10}/\text{day} \end{aligned}$$

$$\begin{aligned} &= (0.0224 \text{ g/bhp-hr}) * (919 \text{ bhp}) * (50 \text{ hr/yr}) \\ &= 2 \text{ lb PM}_{10}/\text{year} \end{aligned}$$

$$\begin{aligned} \text{PE}_{2\text{CO}} &= (2.61 \text{ g/bhp-hr}) * (919 \text{ bhp}) * (24 \text{ hr/day}) \\ &= 126.9 \text{ lb CO/day} \end{aligned}$$

$$\begin{aligned} &= (2.61 \text{ g/bhp-hr}) * (919 \text{ bhp}) * (50 \text{ hr/yr}) \\ &= 264 \text{ lb CO/year} \end{aligned}$$

$$\begin{aligned} \text{PE}_{2\text{VOC}} &= (0.1417 \text{ g/bhp-hr}) * (919 \text{ bhp}) * (24 \text{ hr/day}) \\ &= 6.9 \text{ lb VOC/day} \end{aligned}$$

$$\begin{aligned} &= (0.1417 \text{ g/bhp-hr}) * (919 \text{ bhp}) * (50 \text{ hr/yr}) \\ &= 14 \text{ lb VOC/year} \end{aligned}$$

PE2 for each engine		
Pollutant	Daily Emissions (lb/day)	Annual Emissions (lb/year)
NOx	24.3	51
SOx	0.2	1
PM10	1.1	2
CO	126.9	264
VOC	6.9	14

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-9378-1-0	763	1	6	56	15
S-9378-2-0	763	1	6	56	15
S-9378-3-0	763	1	6	56	15
S-9378-4-0	763	1	6	56	15
S-9378-5-0	763	1	6	56	15
S-9378-6-0	763	1	6	56	15
S-9378-7-0	763	1	6	56	15
S-9378-8-0	763	1	6	56	15
S-9378-9-0	1,100	1	5	43	22
S-9378-10-0	204	0	8	54	7
SSPE1	7,408	9	61	545	149

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

Pursuant to District Rule 2201, the Post-Project Stationary Source Potential to Emit (SSPE2) is the PE from all units with valid ATCs or PTOs, except for emissions units proposed to be shut down as part of the Stationary Project, at the Stationary Source 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.

For this project the change in emissions for the facility is due to the installation of two new emergency standby IC engines. Thus:

SSPE2 (lb/year)					
Permit Unit	NOx	SOx	PM10	CO	VOC
S-9378-1-0	763	1	6	56	15
S-9378-2-0	763	1	6	56	15
S-9378-3-0	763	1	6	56	15
S-9378-4-0	763	1	6	56	15
S-9378-5-0	763	1	6	56	15
S-9378-6-0	763	1	6	56	15
S-9378-7-0	763	1	6	56	15
S-9378-8-0	763	1	6	56	15
S-9378-9-0	1,100	1	5	43	22
S-9378-10-0	204	0	8	54	7
S-9378-11-0 (new ATC)	51	1	2	264	14
S-9378-12-0 (new ATC)	51	1	2	264	14
SSPE2	7,510	11	65	1,073	177

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	7,408	9	61	61	545	149
SSPE2	7,510	11	65	65	1,073	177
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 is not an existing Major Source for PSD for at least one pollutant. Therefore the facility is not an existing Major Source for PSD.

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.

Since these are new emissions units, 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

The project potential to emit, by itself, will not exceed any PSD major source thresholds. Therefore Rule 2410 is not applicable and no further discussion 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.

As discussed in Section I, the facility is proposing to install two (2) new emergency standby IC engines. Additionally, as determined in Sections VII.C.7 and VII.C.8, this project does not result in an SB288 Major Modification or a Federal Major Modification, respectively. Therefore, BACT can only be triggered if the daily emissions exceed 2.0 lb/day for any pollutant.

The daily emissions from each engine are compared to the BACT threshold levels in the following table:

New Emissions Unit BACT Applicability					
Unit	Pollutant	Daily Emissions for the new unit (lb/day)	BACT Threshold (lb/day)	SSPE2 (lb/yr)	BACT Triggered?
S-9378-11-0	NO _x	24.3	> 2.0	n/a	Yes
	SO _x	0.2	> 2.0	n/a	No
	PM ₁₀	1.1	> 2.0	n/a	No
	CO	126.9	> 2.0 and SSPE2 ≥ 200,000 lb/yr	529	No
	VOC	6.9	> 2.0	n/a	Yes
S-9378-12-0	NO _x	24.3	> 2.0	n/a	Yes
	SO _x	0.2	> 2.0	n/a	No
	PM ₁₀	1.1	> 2.0	n/a	No
	CO	126.9	> 2.0 and SSPE2 ≥ 200,000 lb/yr	529	No
	VOC	6.9	> 2.0	n/a	Yes

As shown above, BACT will be triggered for NO_x and VOC emissions from both engines for this project.

2. BACT Guideline

BACT Guideline 3.1.1, applies to the diesel-fired emergency IC engines. [Emergency Diesel I.C. Engines] (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:

- NO_x: EPA Tier 4 Final Certification level or equivalent for applicable horsepower range
- VOC: EPA Tier 4 Final Certification level or equivalent for applicable horsepower range

The facility has proposed to install 919 bhp Tier 4F certified IC engines. Therefore, BACT is satisfied for NO_x and VOC.

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)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2	7,510	11	65	1,073	177
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 the new units are compared to the daily PE Public Notice thresholds in the following table:

PE > 100 lb/day Public Notice Thresholds				
Unit	Pollutant	PE2 (lb/day)	Public Notice Threshold	Public Notice Triggered?
S-9378-11-0	NOx	24.3	100 lb/day	No
	SOx	0.2	100 lb/day	No
	PM10	1.1	100 lb/day	No
	CO	126.9	100 lb/day	Yes
	VOC	6.9	100 lb/day	No
S-9378-11-0	NOx	24.3	100 lb/day	No
	SOx	0.2	100 lb/day	No
	PM10	1.1	100 lb/day	No
	CO	126.9	100 lb/day	Yes
	VOC	6.9	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	7,408	9	61	545	149
SSPE2	7,510	11	65	1,073	177
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	7,510	11	65	1,073	177
SSPE1	7,408	9	61	545	149
SSIPe	102	2	4	528	28
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	7,408	9	61	545	149
SSPE2	7,510	11	65	1,073	177
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 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)

Daily Emissions Limitations (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. Therefore, the following conditions will be listed on the ATC as a mechanism to ensure compliance:

Proposed Rule 2201 (DEL) Conditions:

- Emissions from this IC engine shall not exceed any of the following limits: 0.50 g-NOx/bhp-hr, 2.61 g-CO/bhp-hr, or 0.14 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
- 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**1. Source Testing**

Pursuant to District Policy APR 1705, source testing is not required for emergency standby IC engines to demonstrate compliance with District Rule 2201.

2. Monitoring

No monitoring is required to demonstrate compliance with District Rule 2201.

3. Recordkeeping

Recordkeeping requirements, in accordance with District Rule 4702, will be discussed in Section VIII, District Rule 4702, of this evaluation.

4. Reporting

No reporting is required to ensure compliance with District Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall 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 E of this document for the AAQA summary sheet.

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

The proposed location is in a non-attainment area for the state's PM₁₀ as well as federal and state PM_{2.5} thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM₁₀ and PM_{2.5}.

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 to emit does 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)

40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

The District has not been delegated the authority to implement Subpart IIII requirements for non-Major Sources; therefore, no requirements shall be included on the permit.

Rule 4002 National Emission Standards for Hazardous Air Pollutants**40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Emissions (RICE)**

The District has not been delegated the authority to implement NESHAP regulations for Area Source requirements for non-Major Sources; therefore, no requirements shall be included on the permit.

Rule 4101 Visible Emissions

Rule 4101 states that 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. Therefore, the following condition will be listed on the ATC as a mechanism to ensure compliance:

- {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]

Rule 4102 Nuisance

Rule 4102 states that no air contaminant shall be released into the atmosphere which causes a public nuisance. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, the following condition will be listed on the ATC as a mechanism to ensure compliance:

- {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification of an existing source shall not result in an increase in cancer risk greater than the District's significance level (20 in a million) and shall not result in acute and/or chronic risk indices greater than 1.

An HRA is not required for a project with a total facility prioritization score of less than or equal to one. According to the Technical Services Memo for this project, the total facility prioritization score including this project was less than or equal to one.

The resulting prioritization score for this project is shown below.

Health Risk Assessment Summary			
Permit	Maximum Individual Cancer Risk (in a million)	Chronic Hazard Index	Acute Hazard Index
S-9378-11-0	0.02	0.00	N/A ¹
S-9378-12-0	0.02	0.00	N/A ¹
Incremental Project Totals	0.03	0.00	0.00
Post-Project Cumulative Facility Totals	0.51	0.00	0.00
Significance Thresholds	≤ 20	< 1	< 1
Below Significance Threshold	Yes	Yes	Yes

Notes:

1. Acute hazard index was not calculated for Units 11 and 12 since there is no risk factor or the risk factor is so low it has been determined to be insignificant for this type of unit.

In accordance with District policy APR 1905, no further analysis is required to determine the impact from this project, and compliance with the District's Risk Management Policy is expected.

Compliance with District Rule 4102 requirements is expected.

See Appendix E: Health Risk Assessment Summary

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As shown above, T-BACT is not required for this project because the HRA indicates that the worst-case cancer risk does not exceed one in one million; therefore, compliance with the District's Risk Management Policy is expected.

In accordance with District policy APR 1905, no further analysis is required, and compliance with District Rule 4102 requirements is expected.

See Appendix E: Health Risk Assessment Summary

The following permit conditions are required to ensure compliance with the assumptions made for the risk management review:

Unit # 11-0 and 12-0

- 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]
- 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]

- {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]

Rule 4201 Particulate Matter Concentration

Rule 4201 limits particulate matter emissions from any single source operation to 0.1 g/dscf, which, as calculated below, is equivalent to a PM₁₀ emission factor of 0.4 g-PM₁₀/bhp-hr.

$$0.1 \frac{\text{grain} - \text{PM}}{\text{dscf}} \times \frac{g}{15.43 \text{ grain}} \times \frac{1 \text{ Btu}_{in}}{0.35 \text{ Btu}_{out}} \times \frac{9,051 \text{ dscf}}{10^6 \text{ Btu}} \times \frac{2,542.5 \text{ Btu}}{1 \text{ bhp} - \text{hr}} \times \frac{0.96 \text{ g} - \text{PM}_{10}}{1 \text{ g} - \text{PM}} = 0.4 \frac{\text{g} - \text{PM}_{10}}{\text{bhp} - \text{hr}}$$

The new engines have a PM₁₀ emission factor less than 0.4 g/bhp-hr. Therefore, compliance is expected and the following condition will be listed on the ATCs 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 (NO_x), 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 permits:

- {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 permits:

- {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 5.9 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 5.9 are applicable to emergency standby engines

Section 5.9 requires the owner to:

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

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

5.9.4 Install and operate a nonresettable elapsed operating time meter. 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. The owner of the engine 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 permits:

- {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 permits:

- {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 permits:

- {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 permits:

- 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]
- The permittee shall maintain monthly records of the type of fuel purchased. [District Rules 2201 and 4702 and 17 CCR 93115]
- 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 SO₂) shall not exceed 0.2% by volume. Using the ideal gas equation, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = (n \times R \times T) \div P$$

$$n = \text{moles SO}_2$$

$$T (\text{standard temperature}) = 60^\circ\text{F or } 520^\circ\text{R}$$

$$R (\text{universal gas constant}) = \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}}$$

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

Since 1.0 ppmv is $\leq$ 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 ≤ 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: • 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]
Engines, with a PM10 emissions rate greater than 0.01 g/bhp-hr and located at schools, may not be operated for maintenance and testing whenever there is a school sponsored activity on the grounds. Additionally, engines located within 500 feet of school grounds may not be operated for maintenance and testing between 7:30 AM and 3:30 PM	The District has verified that this engine is not located within 500' of a school.
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 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 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]

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: • 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]
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California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The District performed an Engineering Evaluation (this document) for the proposed project and determined that the project qualifies for ministerial approval under the District's Guideline for Expedited Application Review (GEAR). Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATCs S-9378-11-0 and '-12-0 subject to the permit conditions on the attached draft ATCs in Appendix A.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-9378-11-0	3020-10-E	919 BHP IC Engine	\$781
S-9378-12-0	3020-10-E	919 BHP IC Engine	\$781

XI. Appendices

- A. Draft ATCs
- B. BACT Guideline
- C. BACT Analysis
- D. Emission Data Sheet and ARB Executive Order
- E. HRA Summary
- F. Quarterly Net Emissions Change

APPENDIX A

Draft ATCs

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-9378-11-0

LEGAL OWNER OR OPERATOR: WALMART DISTRIBUTION CENTER #8852

MAILING ADDRESS: 8725 ROSEHILL RD, STE 450
LENEXA, KS 66215

LOCATION: 2701 S DRIVER RD
SHAFTER, CA 93263

EQUIPMENT DESCRIPTION:

919 BHP INTERMITTENT VOLVO-PENTA MODEL TWD1683GE TIER 4F CERTIFIED DIESEL-FIRED EMERGENCY
STANDBY IC ENGINE 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. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. {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]
4. 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. 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. Emissions from this IC engine shall not exceed any of the following limits: 0.50 g-NOx/bhp-hr, 2.61 g-CO/bhp-hr, or 0.14 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
6. 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]
7. {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]
8. {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]

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

Brian Clements, Director of Permit Services

S-9378-11-0 : 6/23/2026 1:57:17 PM -- AMEZCUAM : Joint Inspection NOT Required

9. {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]
10. {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]
11. {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]
12. {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]
13. {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]
14. 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]
15. The permittee shall maintain monthly records of the type of fuel purchased. [District Rules 2201 and 4702, and 17 CCR 93115]
16. 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]

DRAFT

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-9378-12-0

LEGAL OWNER OR OPERATOR: WALMART DISTRIBUTION CENTER #8852
MAILING ADDRESS: 8725 ROSEHILL RD, STE 450
LENEXA, KS 66215

LOCATION: 2701 S DRIVER RD
SHAFTER, CA 93263

EQUIPMENT DESCRIPTION:

919 BHP INTERMITTENT VOLVO-PENTA MODEL TWD1683GE TIER 4F CERTIFIED DIESEL-FIRED EMERGENCY
STANDBY IC ENGINE 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. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. {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]
4. 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. 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. Emissions from this IC engine shall not exceed any of the following limits: 0.50 g-NOx/bhp-hr, 2.61 g-CO/bhp-hr, or 0.14 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
6. 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]
7. {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]
8. {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]

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

Brian Clements, Director of Permit Services

S-9378-12-0 : 6/23/2026 1:57:49 PM -- AMEZCUAM : Joint Inspection NOT Required

9. {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]
10. {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]
11. {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]
12. {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]
13. {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]
14. 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]
15. The permittee shall maintain monthly records of the type of fuel purchased. [District Rules 2201 and 4702, and 17 CCR 93115]
16. 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]

DRAFT

APPENDIX B

BACT Guideline

San Joaquin Valley Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 3.1.1 Last Update: 4/29/2022 Emergency Diesel-Fired IC Engine > 50 bhp Powering an Electrical Generator			
Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
CO	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**		
PM10	EPA Tier 4 Final certification level or equivalent for applicable horsepower range**		
SOx	Very low sulfur diesel fuel (15 ppmv sulfur or less)		
VOC	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.			

APPENDIX C

BACT Analysis

Top Down BACT Analysis for the Emergency IC Engine

This application was deemed complete on <enter date project was deemed complete>. Therefore, BACT Guideline 3.1.1 (June 13, 2019) 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 level or equivalent for applicable horsepower range
- VOC: EPA Tier 4 Final certification level or equivalent for applicable horsepower range

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 VOC will be the use of an EPA Tier 4F certified engine. The applicant is proposing such units. Therefore, BACT will be satisfied.

APPENDIX D
Emissions Data Sheet and ARB Executive Order



EXHAUST EMISSION STATEMENT

Volvo Penta hereby confirms that the TWD1683GE engine when operating at 100% load does not exceed the US Tier 4f emission levels for constant speed genset engines above 560kW. This statement is valid as long as the engine is used according to the regulation and Volvo Penta instructions.

TECHNICAL SPECIFICATION

Engine type:

Rated crankshaft power *):

Rated speed:

*) Stand-by power without fan acc. to ISO 3046.

TWD1683GE

685kW

1800 rpm

EXHAUST EMISSIONS (at 100% load) never exceeds:

	T4f Exhaust Emission Limits for genset engines (Power >560kW)
CO (g/kWh)	3,5
HC (g/kWh)	0,19
NOx (g/kWh)	0,67
PM (g/kWh)	0,03


Kuthan Toydemir

Director Emission Compliance

Quality, Environment, Product Compliance

AB Volvo Penta

Gothenburg 2024-03-08

Pursuant to the authority vested in the California Air Resources Board by Health and Safety Code Division 26, Part 5, Chapters 1 and 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: The engines and emission control systems produced by the manufacturer as described below are certified for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

Model Year	Engine Family	Combustion Cycle	Fuel Operation	Fuel Type(s)	Engine Operation
2025	SVPXL16.1CDD	Diesel	Dedicated	Diesel	Constant Speed Only

Emission Control Systems	Special Features
[1]: Electronic Direct Injection (DDI), Electronic Control Module (ECM), Turbocharger (TC), Charge Air Cooler (CAC), Selective Catalytic Reduction - Urea (SCR-U), Ammonia Oxidation Catalyst (AMOX)	None

The certified engine models are attached.

The listed engine models comply with the following: 1) emission standard limits (STD) and Not-To-Exceed (NTE) limits, as applicable, for criteria pollutants non-methane hydrocarbons (NMHC), nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM), and for smoke opacity as demonstrated during the Acceleration (ACL) and Lugging (LUG) modes, and the peak value (PEAK) in either mode of the Smoke Opacity cycle, as set forth in 13 CCR 2423 and the applicable California test procedures for off-road compression-ignition engines, and 2) family emission limits (FEL) declared by the manufacturer as allowed by the applicable California test procedures, stated in units of gram per kilowatt-hour (g/kW-hr) and percent opacity (%opacity), respectively, except as noted, or designated as not applicable (*).

Applicable Standard		Criteria				Smoke Opacity		
		NMHC	NOx	CO	PM	ACL	LUG	PEAK
Tier 4 Final 560 kW < GEN ≤ 900 kW	STD	0.19	0.67	3.5	0.03	*	*	*
	FEL	*	*	*	*	*	*	*
	NTE	0.28	1.00	4.4	0.04	*	*	*

BE IT FURTHER RESOLVED: Any declared FEL is the emission limit to which all engines must comply in lieu of the standard limit for certification purposes, subject to the restrictions of averaging, banking, or trading (ABT) programs allowed by the applicable California test procedures.

BE IT FURTHER RESOLVED: For the listed engine models, the manufacturer has submitted materials to demonstrate certification compliance with 13 CCR 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control warranty).

BE IT FURTHER RESOLVED: The listed engine models may only be installed in or on equipment such that engine operation is consistent with off-road compression-ignition engines as defined in 13 CCR 2421(a)(39).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed on this 21st day of June 2024.


 Robin U. Lang, Chief
 Emissions Certification and Compliance Division

ATTACHMENT: ENGINE MODELS

Family: SVPXL16.1CDD EO Number: U-R-014-0225 Date Applicable: 6/18/2024												
Model	Code	Trim	Config	Displacement	Peak Power		Speed	Peak Torque		Fueling	ECS Num	Notes
					Power	Torque		Speed	Fueling			
				L	hp	N-m	rpm	rpm	lb/hr	lb/hr		
TWD1683	I	N/A	I6	16.1	867	4118	1500	1500	275	275	1	N/A
TWD1683	II	N/A	I6	16.1	919	3634	1800	1800	297	297	1	N/A

APPENDIX E
Health Risk Analysis (HRA) Summary

San Joaquin Valley Air Pollution Control District

Health Risk Assessment Summary

Facility Name: WALMART DISTRIBUTION CENTER #8852

Facility ID, Project #: S-9378, S-1262719

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-9378-11-0	0.02	0.00	N/A ¹
S-9378-12-0	0.02	0.00	N/A ¹
Incremental Project Totals	0.03	0.00	0.00
Post-Project Cumulative Facility Totals	0.51	0.00	0.00
Significance Thresholds	≤ 20	< 1	< 1
Below Significance Threshold	Yes	Yes	Yes

Notes:

1. Acute hazard index was not calculated for Units 11 and 12 since there is no risk factor or the risk factor is so low it has been determined to be insignificant for this type of unit.

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 OEHHHA 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	1.00E-01	4.00E+00

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.S.D. EPA's AERMOD model. Detailed stack parameters and site-specific meteorological data for 2018-2022 from Bakersfield (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 X. Point Source Parameters

Unit ID	Unit Description	Release Height (m)	Temp. (°K)	Exit Velocity (m/sec)	Stack Diameter (m)	Vertical / Horizontal / Capped
11	919 BHP DICE	4.27	734	58.08	0.20	Capped
12	919 BHP DICE	4.27	734	58.08	0.20	Capped

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 # 11-0 and 12-0

1. The PM₁₀ 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: WALMART DISTRIBUTION CENTER #8852

Facility ID, Project #: S-9378, S-1262719

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 NO₂ 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	N/A	N/A	N/A	N/A	N/A
NO _x	N/A	N/A	N/A	N/A	Pass
SO _x	N/A	N/A	N/A	N/A	Pass
PM ₁₀	N/A	N/A	N/A	N/A	Pass
PM _{2.5}	N/A	N/A	N/A	N/A	Pass

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.
- The project is an intermittent source as defined in APR-1920. In accordance with APR-1920, compliance with short-term (i.e., 1-hour, 3-hour, 8-hour, and 24-hour)

standards is not required.

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. 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 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:

S-9378-11-0:

$$\begin{aligned} PE2_{\text{quarterly}} &= PE2_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 51 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 12.75 \text{ lb NOx/qtr} \end{aligned}$$

$$\begin{aligned} PE1_{\text{quarterly}} &= PE1_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 0 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0.0 \text{ lb NOx/qtr} \end{aligned}$$

$$\begin{aligned} PE2_{\text{quarterly}} &= PE2_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 1 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0.25 \text{ lb SOx/qtr} \end{aligned}$$

$$\begin{aligned} PE1_{\text{quarterly}} &= PE1_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 0 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0.0 \text{ lb SOx/qtr} \end{aligned}$$

$$\begin{aligned} PE2_{\text{quarterly}} &= PE2_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 2 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0.5 \text{ lb PM}_{10}\text{/qtr} \end{aligned}$$

$$\begin{aligned} PE1_{\text{quarterly}} &= PE1_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 0 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0 \text{ lb PM}_{10}\text{/qtr} \end{aligned}$$

$$\begin{aligned} PE2_{\text{quarterly}} &= PE2_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 264 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 66 \text{ lb CO/qtr} \end{aligned}$$

$$\begin{aligned} PE1_{\text{quarterly}} &= PE1_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 0 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0 \text{ lb CO/qtr} \end{aligned}$$

$$\begin{aligned}
 \text{PE2}_{\text{quarterly}} &= \text{PE2}_{\text{annual}} \div 4 \text{ quarters/year} \\
 &= 14 \text{ lb/year} \div 4 \text{ qtr/year} \\
 &= 3.5 \text{ lb VOC/qtr}
 \end{aligned}$$

$$\begin{aligned}
 \text{PE1}_{\text{quarterly}} &= \text{PE1}_{\text{annual}} \div 4 \text{ quarters/year} \\
 &= 0 \text{ lb/year} \div 4 \text{ qtr/year} \\
 &= 0 \text{ lb VOC/qtr}
 \end{aligned}$$

Quarterly NEC [QNEC]			
Pollutant	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NOx	12.75	0	12.75
SOx	0.25	0	0.25
PM10	0.50	0	0.50
CO	66.00	0	66.00
VOC	3.50	0	3.50

S-9378-12-0:

$$\begin{aligned}\text{PE2}_{\text{quarterly}} &= \text{PE2}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 51 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 12.6 \text{ lb NOx/qtr}\end{aligned}$$

$$\begin{aligned}\text{PE1}_{\text{quarterly}} &= \text{PE1}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 0 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0.0 \text{ lb NOx/qtr}\end{aligned}$$

$$\begin{aligned}\text{PE2}_{\text{quarterly}} &= \text{PE2}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 1 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0.3 \text{ lb SOx/qtr}\end{aligned}$$

$$\begin{aligned}\text{PE1}_{\text{quarterly}} &= \text{PE1}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 0 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0.0 \text{ lb SOx/qtr}\end{aligned}$$

$$\begin{aligned}\text{PE2}_{\text{quarterly}} &= \text{PE2}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 2 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0.6 \text{ lb PM}_{10}\text{/qtr}\end{aligned}$$

$$\begin{aligned}\text{PE1}_{\text{quarterly}} &= \text{PE1}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 0 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0 \text{ lb PM}_{10}\text{/qtr}\end{aligned}$$

$$\begin{aligned}\text{PE2}_{\text{quarterly}} &= \text{PE2}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 264 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 66.1 \text{ lb CO/qtr}\end{aligned}$$

$$\begin{aligned}\text{PE1}_{\text{quarterly}} &= \text{PE1}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 0 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0 \text{ lb CO/qtr}\end{aligned}$$

$$\begin{aligned}\text{PE2}_{\text{quarterly}} &= \text{PE2}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 14 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 3.6 \text{ lb VOC/qtr}\end{aligned}$$

$$\begin{aligned}\text{PE1}_{\text{quarterly}} &= \text{PE1}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 0 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 0 \text{ lb VOC/qtr}\end{aligned}$$

Quarterly NEC [QNEC]			
Pollutant	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NOx	12.75	0	12.75
SOx	0.25	0	0.25
PM10	0.50	0	0.50
CO	66.00	0	66.00
VOC	3.50	0	3.50