



**APR 21 2017**

Mr. Gregory Pritchett  
Chevron USA Inc  
PO Box 1392  
Bakersfield, CA 93302

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)  
District Facility # S-1131  
Project # 1171052**

Dear Mr. Pritchett:

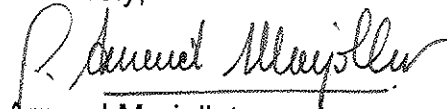
Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project authorizes an IC engine/generator.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authority to Construct with a Certificate of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authority to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,



Arnaud Marjollet  
Director of Permit Services

Enclosures

cc: Tung Le, CARB (w/enclosure) via email  
cc: Gerardo C. Rios, EPA (w/enclosure) via email

Seyed Sadredin  
Executive Director/Air Pollution Control Officer

**Northern Region**  
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**San Joaquin Valley Air Pollution Control District**  
**Authority to Construct Application Review**  
Transportable Diesel-Fired IC Engine Powering Electrical Generator

Facility Name: Chevron USA  
Mailing Address: PO Box 1392  
Bakersfield, CA 93302-1302  
Contact Person: Gregory Pritchett  
Telephone: (661) 654-7141  
FAX: (661) 654-7004  
Application No: S-1131-1204-0  
Project No: S-1171052  
Deemed Complete: March 24, 2017

Date: April 12, 2017  
Engineer: Richard Edgehill  
Lead Engineer: Richard Karrs

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## I. PROPOSAL

Chevron USA (CUSA) has requested an Authority to Construct (ATC) for an EPA Certified Tier 2 limited life diesel-fired 2922 hp IC engine to conduct "black start" testing not exceeding 40 hr total in duration of gas turbine cogeneration system S-1131-1037. This "black start" testing will confirm the availability of the cogeneration unit in the event of a utility power interruption,

Emissions from the new IC engine triggers BACT, offsets, and public notice,

CUSA is a major stationary source with a Title V permit. Kern received their Title V Permit on December 17, 2002. The project is a Federal Major Modification and therefore it is classified as a Title V Significant Modification pursuant to Rule 2520, Section 3.20, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. CUSA must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC(s) issued with this project.

## II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (2/18/16)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
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	Stationary Internal Combustion Engines – Phase 1 (8/21/03)
Rule 4702	Stationary Internal Combustion Engines – Phase 2 (8/18/11)
Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

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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

## II. Project location

The equipment will be operated at the SEKR cogeneration facility within CUSA's heavy oil western stationary source. The District has verified that 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.

## III. Process Description

This IC engine will be used to test the feasibility of starting the SEKF facility LM2500 turbine (S-1131-1037) in the event of a temporary interruption in power by PG&E (black start tests). Operation of the engine will not exceed 40 hr. total in duration and therefore the ATC will authorize limited life operation.

## V. Equipment Listing

**S-1131-1204-0:** 2922 HP EPA TIER 2 DIESEL-FIRED LIMITED-LIFE IC ENGINE

## VI. Emission Control Technology Evaluation

The engine is equipped with:

- Turbocharger
- EPA – Certified Tier 3 compliance and CARB Certified
- Very Low (0.0015%) sulfur diesel

The emission control devices/technologies and their effect on diesel engine emissions detailed below are from *Non-catalytic NO<sub>x</sub> Control of Stationary Diesel Engines*, by Don Koeberlein, CARB.

The turbocharger reduces the NO<sub>x</sub> emission rate from the engine by approximately 10% by increasing the efficiency and promoting more complete burning of the fuel.

The use of very low sulfur (0.0015% by weight sulfur maximum) diesel fuel reduces SO<sub>x</sub> emissions by over 99% from standard diesel fuel.

## VII. General Calculations

### A. Assumptions

Operating schedule: 4 hr/day, 40 hr total  
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<sub>10</sub> fraction of diesel exhaust: 0.96 (CARB, 1988)

The 2017 EPA Tier 2 certification (**Attachment I**) includes only a certified emissions factor for NO<sub>x</sub> and VOC emissions combined. The certified NO<sub>x</sub> + VOC emissions are 4.8 g/bhp-hr. It will be assumed the NO<sub>x</sub> + VOC emission factor is split 95% NO<sub>x</sub> and 5% VOC (per the District's Carl Moyer program).

**B. Emission Factors**

Pollutant	Emission Factor (g/bhp-hr)	Source
NO <sub>x</sub>	4.56	EPA Tier 2 Standard
SO <sub>x</sub>	0.0051	Mass Balance Equation Below
PM <sub>10</sub>	0.15	EPA Tier 2 Standard
CO	2.6	EPA Tier 2 Standard
VOC	0.24	EPA Tier 2 Standard

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

**C. Calculations**

**1. Pre-Project Potential to Emit (PE1)**

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

**2. Post Project PE (PE2)**

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 <sub>x</sub>	4.56	2922	4	40	117.5	1175
SO <sub>x</sub>	0.0051	2922	4	40	0.1	1
PM <sub>10</sub>	0.15	2922	4	40	3.9	39
CO	2.6	2922	4	40	67.0	670
VOC	0.24	2922	4	40	6.2	62

The emissions profile is included in **Attachment II**.

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

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (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 that have occurred at the source, and which have not been used on-site.

Pursuant to information in the facility files, Chevron USA is currently above the major source threshold for all criteria pollutants (SSPE Calculator 4/1/17). Therefore, the facility is not becoming a Major source and an offset threshold will not be surpassed as a result of this project. Therefore, SSPE1 calculations are not required and will not be performed for the purposes of this project.

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

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) 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 that have occurred at the source, and which have not been used on-site.

As shown above, the proposed project results in an increase in annual emissions for all pollutants (SSPE Calculator 4/1/17)). Therefore, Chevron USA will remain above the major source threshold for all criteria pollutant emissions after this project. Therefore, the facility is not becoming a Major source and an offset threshold will not be surpassed as a result of this project. Therefore, SSPE2 calculations are not required and will not be performed for the purposes of this project.

#### **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)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

Rule 2201 Major Source Determination (lb/year)						
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	VOC
SSPE1	>20,000	>140,000	>140,000	>140,000	>200,000	>20,000
SSPE2	>20,000	>140,000	>140,000	>140,000	>200,000	>20,000
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	yes	yes	yes	yes	yes	yes

Note: PM2.5 assumed to be equal to PM10

This source is an existing Major Source for NO<sub>x</sub>, SO, PM10, CO, and VOC emissions and will remain a Major Source for VOC. No change in other pollutants are proposed or expected as a result of this project.

**Rule 2410 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 <sub>2</sub>	VOC	SO <sub>2</sub>	CO	PM	PM <sub>10</sub>
Estimated Facility PE before Project Increase	>500*					
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	Y					

\*SSPE calculator 4/1/17

As shown above, the facility is an existing PSD major source for at least one pollutant.

**6. Baseline Emissions (BE)**

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to calculate the 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.

S-1131-1204-0:

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

### 7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "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."

Therefore this project is not an SB 288 Major Modification.

Since this facility is a major source for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and VOC, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO <sub>x</sub>	1,175	50,000	Yes/No
SO <sub>x</sub>	1	80,000	Yes/No
PM <sub>10</sub>	39	30,000	Yes/No
VOC	62	50,000	Yes/No

Since none of the SB 288 Major Modification Thresholds are surpassed with this project, this project does not constitute an SB 288 Major Modification.

### 8. 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.

Since this source is not included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions are not included in the Federal Major Modification determination.

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. Emission decreases may not cancel out the increases for this determination.

**Step 1**

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project.

<b>Federal Major Modification Thresholds for Emission Increases</b>			
<b>Pollutant</b>	<b>Total Emissions Increases (lb/yr)</b>	<b>Thresholds (lb/yr)</b>	<b>Federal Major Modification?</b>
NO <sub>x</sub> *	1,175	0	Yes
VOC*	62	0	No
PM <sub>10</sub>	39	30,000	No
PM <sub>2.5</sub>	39	20,000	No
SO <sub>x</sub>	1	80,000	No

\*If there is any emission increases in NO<sub>x</sub> or VOC, this project is a Federal Major Modification and no further analysis is required, SO<sub>x</sub>, PM<sub>10</sub>, and VOC emissions/365 < 0.5 (rounds to zero, District Policy APR 1030).

Since there is an increase in NO<sub>x</sub> emissions, this project constitutes a Federal Major Modification. Federal Offset quantities are calculated below.

Federal Offset quantities are calculated below:

**Federal Offset Quantities:**

The Federal offset quantity is only calculated only for the pollutants for which the project is a Federal Major Modification. The Federal offset quantity is the sum of the annual emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the actual emissions (AE) during the baseline period for each emission unit times the applicable federal offset ratio. There are no special calculations performed for units covered by an SLC.

<b>NOx</b>		<b>Federal Offset Ratio</b>		<b>1.5</b>
<b>Permit No.</b>	<b>Actual Emissions (lb/year)</b>	<b>Potential Emissions (lb/year)</b>	<b>Emissions Change (lb/yr)</b>	
<b>S-1131-1204-0</b>	<b>1,175</b>	<b>1,175</b>	<b>1,175</b>	
			<b>0</b>	
			<b>0</b>	
			<b>0</b>	
<b>Net Emission Change (lb/year):</b>			<b>1,175</b>	
<b>Federal Offset Quantity: (NEC * 1.5)</b>			<b>1,763</b>	



**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)

- NO<sub>2</sub> (as a primary pollutant)
- SO<sub>2</sub> (as a primary pollutant)
- CO
- PM
- PM<sub>10</sub>
- Sulfuric acid mist
- Hydrogen sulfide (H<sub>2</sub>S)
- Total reduced sulfur (including H<sub>2</sub>S)
- Reduced sulfur compounds

**I. Project Location Relative to Class 1 Area**

As demonstrated in the “PSD Major Source Determination” Section above, the facility was determined to be a existing PSD Major Source. Because the project is not located within 10 km (6.2 miles) of a Class 1 area – modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

**II. Project Emission Increase – Significance Determination**

**a. Evaluation of Calculated Post-project Potential to Emit for New or Modified Emissions Units vs PSD Significant Emission Increase Thresholds**

As a screening tool, the post-project potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if the total potentials to emit from all new and modified units are below the applicable thresholds, no further PSD analysis is needed.

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)					
	NO <sub>2</sub>	SO <sub>2</sub>	CO	PM	PM <sub>10</sub>
Total PE from New and Modified Units	0.6	<0.05	<0.05	<0.05	<0.05
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission Increase?	N	N	N	N	N

As demonstrated above, because the post-project total potentials to emit from all new and modified emission units are below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 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. The emissions unit is new and therefore QNEC = PE2/4.

## **VIII. Compliance Determination**

### **Rule 2201 New and Modified Stationary Source Review Rule**

#### **A. Best Available Control Technology (BACT)**

##### **1. BACT Applicability**

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 two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- d. 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 emissions units – PE > 2 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 lb/day for NO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. BACT is triggered for NO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC only since the PEs are greater than 2 lb/day.

##### **b. Relocation of emissions units – PE > 2 lb/day**

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

**c. Modification of emissions units – AIPE > 2 lb/day**

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

**d. SB 288/Federal Major Modification**

As discussed in Sections VII.C.7 and VII.C.8 above, this project does not constitute a Federal Major Modification for NO<sub>x</sub> emissions. Therefore BACT is triggered for all pollutants with an emissions increase (emissions/365 > 0.5) i.e. NO<sub>x</sub>.

**2. BACT Guideline**

There is no existing BACT Guideline for “black start” testing of a turbine cogeneration system. However the proposed use of the IC engine is to simulate an emergency situation and therefore BACT Guideline is 3.1.1, which appears in **Attachment III** of this report, is appropriate.

**3. BACT Analysis**

Pursuant to the BACT Analysis which appears in **Attachment IV** BACT is satisfied by the following:

NO<sub>x</sub>: Tier 2 Certification

**B. Offsets**

**1. Offset Applicability**

Offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

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

Offset Determination (lb/year)					
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
SSPE2	>20,000	>54,750	>29,200	>200,000	>20,000
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets calculations required?	Yes	Yes	Yes	Yes	Yes

## 2. Quantity of Offsets Required

As seen above, the SSPE2 is not greater than the offset thresholds for all the pollutants; therefore offset calculations are not necessary and offsets will not be required for this project.

### SO<sub>x</sub>, PM<sub>10</sub>, VOC

As seen above, the SSPE2 is greater than the offset thresholds for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. Therefore offset calculations will be required for this project. Offsets are not required for SO<sub>x</sub>, PM<sub>10</sub>, and VOC since annual emissions/365 are < 0.5 lb/day (District Policy APR 1130).

### CO

Regarding CO, Section 4.6.1 of Rule 2201 states that emissions offsets are not required for increases in CO in attainment areas provided the applicant demonstrates to the satisfaction of the APCO that the Ambient Air Quality (AAQ) Standards are not violated in the areas to be affected, such emissions will be consistent with Reasonable Further Progress, and will not cause or contribute to a violation of AAQ Standards. The District performed an AAQ Analysis and determined that this project will not result in or contribute to a violation of an AAQ Standard for CO (see **Attachment V**). Therefore, CO offsets are not required for this project.

### NO<sub>x</sub>

The quantity of offsets in pounds per year for NO<sub>x</sub> is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) =  $(\Sigma[PE2 - BE] + ICCE) \times DOR$ , for all new or modified emissions units in the project,

Where,

PE2 = Post Project Potential to Emit, (lb/year)

BE = Baseline Emissions, (lb/year)

ICCE = Increase in Cargo Carrier Emissions, (lb/year)

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

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 = HAE

The facility is proposing to install a new emissions unit; therefore BE = 0. Also, there is only one emissions unit associated with this project and there are no increases in cargo carrier emissions; therefore offsets can be determined as follows:

$$\text{Offsets Required (lb/year)} = ([\text{PE2} - \text{BE}] + \text{ICCE}) \times \text{DOR}$$

$$\begin{aligned} \text{PE2 (NO}_x\text{)} &= 1,175 \text{ lb/year} \\ \text{BE (NO}_x\text{)} &= 0 \text{ lb/year} \\ \text{ICCE} &= 0 \text{ lb/year} \end{aligned}$$

The project is a Federal Major Modification and therefore the correct offset ratio for NO<sub>x</sub> is 1.5:1.

Assuming an offset ratio of 1.5:1, the amount of NO<sub>x</sub> ERCs that need to be withdrawn is:

$$\begin{aligned} \text{Offsets Required (lb/year)} &= ([1,175 - 0] + 0) \times 1.5 \\ &= 1,175 \times 1.5 \\ &= 1,763 \text{ lb NO}_x\text{/year} \end{aligned}$$

Calculating the appropriate quarterly emissions to be offset is as follows:

$$\begin{aligned} \text{Quarterly offsets required (lb/qtr)} &= (1,763 \text{ lb NO}_x\text{/year}) \div (4 \text{ quarters/year}) \\ &= 440.75 \text{ lb/qtr} \end{aligned}$$

As shown in the calculation above, the quarterly amount of offsets required for this project, when evenly distributed to each quarter, results in fractional pounds of offsets being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

<b>Redistribution of Required Quarterly Offsets</b> (where X is the annual amount of offsets, and $X \div 4 = Y.z$ )				
<b>Value of z</b>	<b>Quarter 1</b>	<b>Quarter 2</b>	<b>Quarter 3</b>	<b>Quarter 4</b>
.0	Y	Y	Y	Y
.25	Y	Y	Y	Y+1
.5	Y	Y	Y+1	Y+1
.75	Y	Y+1	Y+1	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

<u>1<sup>st</sup> Quarter</u>	<u>2<sup>nd</sup> Quarter</u>	<u>3<sup>rd</sup> Quarter</u>	<u>4<sup>th</sup> Quarter</u>	<u>Total Annual</u>
440	441	441	441	1,763

The applicant proposes to use the following ERCs to offset the project:

ERC#	Pollutant	QTR 1	QTR 2	QTR 3	QTR 4
Complete Withdrawal					
C-1147-2	NOx	56	57	39	53
C-1372-2	NOx	27	70	23	17
C-966-2	NOx	2	2	2	2
S-1325-2	NOx	260	118	306	241
Total		345	247	370	313
Partial Withdrawal					
S-496-2	NOx	95	194	71	128
Total		440	441	441	441

As seen above, the facility has sufficient credits to fully offset the quarterly NO<sub>x</sub> emissions increases associated with this project.

**Proposed Rule 2201 (offset) Conditions:**

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender NO<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter - 440 lb, 2nd quarter - 441 lb, 3rd quarter - 441 lb, and fourth quarter - 441 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
- ERC Certificate Numbers C-1147-2, C-1372-2, C-966-2, S-1325-2, and S-496-2 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

**C. Public Notification**

**1. Applicability**

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, and/or
- e. Any project which results in a Title V significant permit modification

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

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in Sections VII.C.7 and VII.C.8, this project is an SB 288 or Federal Major Modification. Therefore, public noticing for SB 288 or Federal Major Modification purposes is 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:

<b>PE &gt; 100 lb/day Public Notice Thresholds</b>			
<b>Pollutant</b>	<b>PE2 (lb/day)</b>	<b>Public Notice Threshold</b>	<b>Public Notice Triggered?</b>
NO <sub>x</sub>	117.5	100 lb/day	Yes
SO <sub>x</sub>	0.1	100 lb/day	No
PM <sub>10</sub>	3.9	100 lb/day	No
CO	67.0	100 lb/day	No
VOC	6.2	100 lb/day	No

Therefore, public noticing for PE > 100 lb/day purposes is not required.

**c. Offset Threshold**

The SSPE1 and SSPE2 are compared to the offset thresholds in the following table.

<b>Offset Thresholds</b>				
<b>Pollutant</b>	<b>SSPE1 (lb/year)</b>	<b>SSPE2 (lb/year)</b>	<b>Offset Threshold</b>	<b>Public Notice Required?</b>
NO <sub>x</sub>	>20,000	>20,000	20,000 lb/year	No
SO <sub>x</sub>	>54,750	>54,750	54,750 lb/year	No
PM <sub>10</sub>	>29,200	>29,200	29,200 lb/year	No
CO	>200,000	>200,000	200,000 lb/year	No
VOC	>20,000	>20,000	20,000 lb/year	No

As detailed 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. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO <sub>x</sub>	>20,000	>20,000	1,175	20,000 lb/year	No
SO <sub>x</sub>	>54,750	>54,750	1	20,000 lb/year	No
PM <sub>10</sub>	>29,200	>29,200	39	20,000 lb/year	No
CO	>200,000	>200,000	670	20,000 lb/year	No
VOC	>20,000	>20,000	62	20,000 lb/year	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. Title V Significant Permit Modification**

As shown in the Discussion of Rule 2520 below, this project constitutes a Title V significant modification. Therefore, public noticing for Title V significant modifications is required for this project.

**2. Public Notice Action**

As discussed above, public noticing is required for this project as the project is a federal Major Modification. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation 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 or lb/MMBtu), the maximum engine horsepower rating, and the maximum operational time of 24 hours per day.

**Proposed Rule 2201 (DEL) Conditions:**

*NO<sub>x</sub> emissions (referenced as NO<sub>2</sub>) shall not exceed 4.56 g/bhp-hr. [District Rule 2201] Y*



VOC emissions (referenced as methane) shall not exceed 0.24 g/bhp-hr. [District Rule 2201] Y

CO emissions shall not exceed 2.6 g/bhp-hr. [District Rule 2201] Y

The PM10 emissions rate from the engine shall not exceed 0.15 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102] Y

Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801] Y

## **E. Compliance Assurance**

### **1. Source Testing**

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

### **2. Monitoring**

No monitoring is required to demonstrate compliance with 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 operator shall maintain records of the daily hours and cumulative hours of operation on a 12 month rolling average. These records shall be updated at least monthly. [District Rules 2201 and 4702] Y*

*All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Y*

### **4. Reporting**

No reporting is required to demonstrate compliance with 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 V** of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NO<sub>x</sub>, CO, and SO<sub>x</sub>. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NO<sub>x</sub>, CO, or SO<sub>x</sub>.

The proposed location is in a non-attainment area for the state's PM<sub>10</sub> as well as federal and state PM<sub>2.5</sub> thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM<sub>10</sub> and PM<sub>2.5</sub>.

### **G. Compliance Certification**

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VIII above, this facility is a new major source and this project does constitute a Federal Major Modification, therefore this requirement is applicable. CUSA's compliance certification is included in **Attachment VI**.

### **H. Alternate Siting Analysis**

The current project occurs at an existing facility. The applicant proposes to install an IC engine.

Since the project will provide an IC engine to be used at the same location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale, and would therefore result in a much greater impact.

### **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**

This facility is subject to this Rule, and has received their Title V Operating Permit. Section 3.29 defines a significant permit modification as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

The project is Federal Major Modification and therefore is also a Title V Significant Modification. As discussed above, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Included in **Attachment VI** is CUSA's Title V Compliance Certification form. Continued compliance with this rule is expected.

## **Rule 4001 New Source Performance Standards (NSPS)**

### **40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

#### §60.4200 - Applicability

This subpart is applicable to owners and operators of stationary compression ignited internal combustion engines that commence construction after July 11, 2005, where the engines are:

- 1) Manufactured after April 1, 2006, if not a fire pump engine.
- 2) Manufactured as a National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

Since the proposed engine will be installed after July 11, 2005 and will be manufactured after April 1, 2006, this subpart applies.

All of the applicable standards/emissions limits of this subpart are no more restrictive than EPA Certified Tier 2 and District Rule 4702. This engine will comply with the Subpart.

## **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 IC engine is not "existing" (i.e. installed > 6/12/06) and therefore the subpart is not applicable.

## **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 EPA Tier 2 Certified, 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 (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.

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (**Attachment V**), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
S-1131-1204-0	0.13 per million	No

### Discussion of T-BACT

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 20 in a million). As outlined by the HRA Summary in **Attachment V** of this report, the emissions increases for this project was determined to be less than significant.

(Engine may be fired only on CARB Certified ultra-low sulfur fuel (0.0015% S).

- PM<sub>10</sub> rate shall not exceed 0.15 g/hp-hr.
- The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction.
- The engine shall be limited to 4 hours per day and 40 hours per year of operation

### 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.

$$0.15 \frac{g}{hp \cdot hr} \times \frac{1hp \cdot hr}{2,542.5 Btu} \times \frac{10^6 Btu}{9,051 dscf} \times \frac{0.35 Btu_{out}}{1 Btu_{in}} \times \frac{15.43 grain}{g} = 0.04 \frac{grain}{dscf}$$

Since 0.04 grain/dscf is less than 0.1 grain/dscf, compliance with this rule is expected.

### Rule 4701 Stationary Internal Combustion Engines – Phase I

Pursuant to Section 7.5.2.3 of District Rule 4702, as of June 1, 2006 District Rule 4701 is no longer applicable to full time IC engines. Therefore, this engine will comply with the requirements of District Rule 4702 and no further discussion is required.

## Rule 4702 Internal Combustion Engines – Phase 2

### Purpose:

The purpose of this rule is to limit the emissions of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines.

### Applicability:

This Rule applies to any internal combustion engine with a rated brake horsepower greater than 50 horsepower.

### Exemptions:

Pursuant to Section 4.2.2, this IC engine is exempt from the requirements of this rule, except Sections 5.7 and 6.2.3, because it will not operate more than 200 hours per calendar year and will not 1) generate electrical power to feed into a utility power grid, 2) generate mechanical power used to reduce electrical power purchased by a stationary source, or 3) be used in a distributed generation application.

### Requirements:

Section 5.7 of this Rule requires that the owner of an engine subject to section 4.2 shall comply with the requirements specified in Section 5.7.2 through Section 5.7.5 below:

- 1) Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.
- 2) Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.
- 3) 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 Stationary 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.

Therefore, the following conditions will be listed on the ATC to ensure compliance:

*Total operation of the IC engine associated with this permit unit shall not exceed 40 hours without prior District approval through issuance of an Authority to Construct. [District Rule 2201] Y*

*During periods of operation, 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]*

*This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO-approved alternative. [District Rules 2201 and 4702] Y*

Record keeping:

Section 6.2.3 requires that 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 submitted to the APCO upon request and at the end of each calendar year in a manner and form approved by the APCO. 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 this Rule.

Therefore, the following condition will be listed on the permit to ensure compliance:

- *{3797} 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, and any other information necessary to demonstrate compliance with Rule 4702.*

Compliance with this Rule is expected and no further discussion is required.

**Rule 4801 Sulfur Compounds**

Rule 4801 requires that sulfur compound emissions (as SO<sub>2</sub>) 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 = moles SO<sub>2</sub>

T (standard temperature) = 60 °F or 520 °R

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

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

Since 1.0 ppmv is ≤ 2,000 ppmv, this engine is expected to comply with Rule 4801. Therefore, the following condition (previously proposed in this engineering evaluation) will be listed on the ATC to ensure compliance:

- *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 93116]*

## Code of Federal Regulations (CFR), Title 40, Part 89

The term "non-road" is defined in Title 40 Code of Federal Regulations (CFR) Part 89 (Control Of Emissions From New and In-Use Nonroad Compression-Ignition Engines). Like District "transportable" engines, federal "non-road" engines are also mobile.

Per 40 CFR Part 89, non-road engines include compression ignited engines that, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indications of transportability include but are not limited to wheels, skids, carrying handles, dollies, trailers, or platforms.

An internal combustion engine is NOT a non-road engine if:

1. The engine is used to propel a motor vehicle or a vehicle used solely for competition; or is subject to standards promulgated under section 202 of the Clean Air Act; or
2. The engine is regulated by a New Source Performance Standard promulgated under section 111 of the Clean Air Act; or
3. The engine will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site (i.e. footprint) at a building, structure, facility, or installation. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e., at least 2 years) and that operates at that single location approximately three months (or more) each year.

In addition, there are several categories that are not included in the definition of non-road (or subject to 40 CFR 89). These categories are:

1. Aircraft Engines
2. Mining Engines
3. Locomotive Engines
4. Marine Engines
5. Hobby Engines (less than 50 cc per cylinder)
6. Tier 4 Engines that are subject to emissions standards under 40 CFR Part 1039

The proposed engine meets the definition of a non-road engine, and is therefore subject to this part.

40 CFR Part 89 identifies emissions certification requirements for new non-road engines. There are no emission requirements for existing engines.

Per 40 CFR Part 89.2, "new" means:

"a nonroad engine, nonroad vehicle, or nonroad equipment the equitable or legal title to which has never been transferred to an ultimate purchaser. Where the equitable or legal title to the engine, vehicle, or equipment is not transferred to an ultimate purchaser until after the engine, vehicle, or equipment is placed into service, then the engine, vehicle, or equipment will no longer be new after it is placed into service. A nonroad engine, vehicle, or equipment is placed into service when it is used for its functional purposes."

The proposed IC engine was in service prior to its proposed use for this project i.e. the equitable or legal title had been transferred to an ultimate purchaser. Therefore the engine is not new.

The certification requirements of this regulation are known as either Tier 1, Tier 2, or Tier 3 certifications.

Pursuant to 40 CFR Part 89, Appendix A to Subpart A:

"EPA believes that states are not precluded (*or prevented*) under section 209 from regulating the use and operation of non-road engines, such as regulations on hours of usage, daily mass emission limits, or sulfur limits on fuel; nor are permits regulating such operations precluded (*or prevented*), once the engine is no longer new. EPA believes that states are precluded from requiring retrofitting of used nonroad engines except that states are permitted to adopt and enforce any such retrofitting requirements identical to California requirements which have been authorized by EPA under section 209 of the Clean Air Act."

Therefore, beyond the requirements of Part 89, local authorities can only regulate the use and operation of non-road engines such as regulations on the hours of usage, daily mass emission limits, or sulfur limits on fuel. Local authorities cannot require retrofitting of used nonroad engines except those that are identical to California requirements that have been authorized by EPA, e.g. in the California Code of Regulations (CCR).

The existing engine proposed was the latest EPA certification for the applicable rated power category when they were installed; therefore, this part is satisfied.

**California Code of Regulations (CCR), Title 13 (Motor Vehicles), Division 3 (Air Resources Board), Chapter 9 (Off-Road Vehicles and Engines Pollution Control Devices), Article 4 (Off-Road Compression-Ignition Engines and Equipment)**

§ 2420 - Applicability:

This article is applicable to new heavy-duty compression-ignited engines produced on or after January 1, 1996 and all other new 2000 model year and later off-road compression-ignition engines, with the exception of all engines and equipment that fall within the scope of the preemption of Section 209(e)(1)(A) of the Federal Clean Air ACT and as defined by regulation of the U.S. Environmental Protection Agency. The engine proposed falls under the applicability of this article since they are "off-road" as defined below.



## § 2421 - Definitions

Like District "transportable" engines and federal "non-road" engines, California "off-road" engines are also mobile. "Off-road" engines are defined as:

"(A) Except as specified in paragraph (B) of this definition, an off-road compression-ignition engine is any internal combustion engine:

1. In or on a piece of equipment that is self-propelled or serves as a dual purpose by both propelling itself and performing another function and is primarily used off the highways (such as garden tractors, off-highway mobile cranes and bulldozers); or
2. In or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers); or
3. That, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to wheels, skids, carrying handles, dolly, trailer, or platform.

(B) An internal combustion engine is not an off-road compression-ignition engine if:

1. The engine is used to propel a vehicle subject to the emission standards contained in Title 13, California Code of Regulations, Sections 1950-1978, or a vehicle used solely for competition, or is subject to standards promulgated under Section 202 of the federal Clean Air Act (42 U.S.C. 7521); or
2. The engine is regulated by a federal New Source Performance Standard promulgated under Section 111 of the federal Clean Air Act (42 U.S.C. 7511); or
3. The engine otherwise included in paragraph (A)3 of this definition remains or will remain at a location for more than 12 consecutive months or a shorter time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at a single location approximately three months (or more) each year. This paragraph does not apply to an engine after the engine is removed from the location."

## § 2423 - Emission Standards:

This section requires subject engines to meet the tier certification requirements identified in this section, which are taken from 40 CFR Part 89 for Tiers 1 thru 3. The proposed engine was the latest available EPA certification when installed; therefore, it meets the requirements listed in this section.

**California Code of Regulations (CCR), Title 17 (Public Health), Division 3 (Air Resources), Chapter 1 (Air Resources Board), Subchapter 7.5 (Air Toxic Control Measures), Measure 93116 (Portable Diesel Engines)**

§ 93116.1 - Applicability

Except as provided in §93116.1(b), all portable engines having a maximum rated hp of 50 bhp and greater and fueled with diesel are subject to this regulation. The proposed engine(s) are portable and are subject to this regulation.

§ 93116.2 - Definitions

Like District "transportable", federal "non-road", and California "off-road" engines, California "portable" engines are also mobile.

(bb) Portable means designed and capable of being carried or moved from one location to another. Indicia of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. For the purposes of this regulation, dredge engines on a boat or barge are considered portable. The engine is not portable if:

(1) the engine or its replacement is attached to a foundation, or if not so attached, will reside at the same location for more than 12 consecutive months. The period during which the engine is maintained at a storage facility shall be excluded from the residency time determination. Any engine, such as a back-up or stand-by engine, that replace engine(s) at a location, and is intended to perform the same or similar function as the engine(s) being replaced, will be included in calculating the consecutive time period. In that case, the cumulative time of all engine(s), including the time between the removal of the original engine(s) and installation of the replacement engine(s), will be counted toward the consecutive time period; or

(2) the engine remains or will reside at a location for less than 12 consecutive months if the engine is located at a seasonal source and operates during the full annual operating period of the seasonal source, where a seasonal source is a stationary source that remains in a single location on a permanent basis (at least two years) and that operates at that single location at least three months each year; or

(3) the engine is moved from one location to another in an attempt to circumvent the portable residence time requirements.

§ 93116.2 - Requirements

Fuel and Fuel Additive Requirements:

This regulation stipulates that diesel-fueled portable engines shall use one of the following fuels:

1. CARB Diesel Fuel; or
2. An alternative diesel fuel that has been verified through the Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines; or

3. CARB diesel fuel utilizing fuel additives that have been verified through the Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines.

The proposed engine will use CARB certified diesel fuel.

Diesel PM Standards:

Portable diesel-fueled engines that have not been permitted or registered prior to January 1, 2006, (meaning new engines) are subject to “the most stringent of the federal or California emission standard for nonroad engines”.

Prior to this permitting action, the engine was the latest CARB certification (Tier 1 or better) when it was installed.

Fleet Requirements:

The earliest fleet average PM requirement is 1/1/2013; therefore, there is no applicable fleet requirement at this time.

**California Health & Safety Code 42301.6 (School Notice)**

The District has verified that this site is located within 1,000 feet of a school. However, pursuant to California Health and Safety Code 42301.6, since this project will not result in an increase in emissions, a school notice is not required.

**California Environmental Quality Act (CEQA)**

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 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; and
- 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.

**Greenhouse Gas (GHG) Significance Determination**

District is a Responsible Agency

Oil and gas operations in Kern County must comply with the *Kern County Zoning Ordinance – 2015 (C) Focused on Oil and Gas Local Permitting*. In 2015, Kern County revised the Kern County Zoning Ordinance Focused on Oil and Gas Activities (Kern Oil and Gas Zoning Ordinance) in regards to future oil and gas exploration, and drilling and production of hydrocarbon resource projects occurring within Kern County.

Kern County served as lead agency for the revision to their ordinance under the California Environmental Quality Act (CEQA), and prepared an Environmental Impact Report (EIR) that was certified on November 9, 2015. The EIR evaluated and disclosed to the public the environmental impacts associated with the growth of oil and gas exploration in Kern County, and determined that such growth will result in significant GHG impacts in the San Joaquin Valley. As such, the EIR included mitigation measures for GHG.

The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381). As a Responsible Agency, the District is limited to mitigating or avoiding impacts for which it has statutory authority. The District does not have statutory authority for regulating GHGs. The District has determined that the applicant is responsible for implementing GHG mitigation measures imposed in the EIR by the Kern County for the Kern County Zoning Ordinance.

### **District CEQA Findings**

The proposed project is located in Kern County and is thus subject to the *Kern County Zoning Ordinance – 2015 (C) Focused on Oil and Gas Local Permitting*. The *Kern County Zoning Ordinance* was developed by the Kern County Planning Agency as a comprehensive set of goals, objectives, policies, and standards to guide development, expansion, and operation of oil and gas exploration within Kern County.

In 2015, Kern County revised their *Kern County Zoning Ordinance* in regards to exploration, drilling and production of hydrocarbon resources projects. Kern County served as lead agency for the revision to their ordinance under the California Environmental Quality Act (CEQA), and prepared an Environmental Impact Report (EIR) that was certified on November 9, 2015. The revised Kern County Zoning Ordinance establishes a written process (Conformity Review permit process or Minor Activity permit) by which oil and gas exploration projects involving site-specific operations can be evaluated to determine whether the environmental effects of the operation were covered in the *Kern County Zoning Ordinance* EIR.

For stationary source emissions that are below the offset threshold, i.e. not required to surrender ERCs, and for non-stationary source emissions, Kern County entered into an Oil and Gas Emission Reduction Agreement (Oil and Gas ERA) with the District pursuant to the EIR. Per the Oil and Gas ERA, the applicant shall fully mitigate project emissions that are not required to be offset by District permit rules and regulations. Such mitigation can be achieved through any of the three options: (1) the applicants pay an air quality mitigation fee with each Oil and Gas Conformity Review permit issued by the Kern County, (2) the applicants may develop and propose to implement their own emission reduction projects instead of paying all or part of the mitigation fee, or (3) the applicants will be allowed to enter into an agreement directly with the District (if approved by Kern County) to develop an alternative fee schedule.

Kern County, as the lead agency, is the agency that will enforce the mitigation measures identified the EIR, including the mitigation requirements of the Oil and Gas ERA. As a

responsible agency the District complies with CEQA by considering the EIR prepared by the Lead Agency, and by reaching its own conclusion on whether and how to approve the project involved (CCR §15096). The District has reviewed the EIR prepared by Kern County, the Lead Agency for the project, and finds it to be adequate. To reduce project related impacts on air quality, the District evaluates emission controls for the project such as Best Available Control Technology (BACT) under District Rule 2201 (New and Modified Stationary Source Review). In addition, the District is requiring the applicant to surrender emission reduction credits (ERC) for stationary source emissions above the offset threshold.

Thus, the District concludes that through a combination of project design elements, permit conditions, and the Oil and Gas ERA, the project will be fully mitigated to result in no net increase in emissions. Pursuant to CCR §15096, prior to project approval and issuance of ATCs the District prepared findings.

### **Indemnification Agreement/Letter of Credit Determination**

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit is based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

The revision to the *Kern County Zoning Ordinance* went through an extensive public process that included a Notice of Preparation, a preparation of an EIR, scoping meetings, and public hearings. The process led to the certification of the final EIR and approval of the revised *Kern County Zoning Ordinance* in November 2015 by the Kern County Board of Supervisors. As mentioned above, the proposed project will be fully mitigated and will result in no net increase in emissions. In addition, the proposed project is not located at a facility of concern; therefore, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

### **IX. Recommendation**

Issue Authority to Construct s-1131-1204-0 subject to the permit conditions listed on the draft Authority to Construct in **Attachment VII**.

### **X. Billing Information**

Filing fees have been submitted with this application. The annual permit fees will be based on the following schedule.

Permit Number	Fee Schedule	Fee Description
S-1131-1204	3020-10-F	2922 hp

# Attachment I

## Engine Specifications & Certifications



**Power  
Generation**

**2017 EPA Tier 2 Exhaust Emission  
Compliance Statement  
2000DQKAB  
Stationary Emergency  
60 Hz Diesel Generator Set**

**Compliance Information:**

The engine used in this generator set complies with Tier 2 emissions limit of U.S. EPA New Source Performance Standards for stationary emergency engines under the provisions of 40 CFR 60 Subpart IIII when tested per ISO8178 D2.

Engine Manufacturer:	Cummins Inc
EPA Certificate Number:	HCEXL060.AAD-025
Effective Date:	11/15/2016
Date Issued:	11/15/2016
EPA Engine Family (Cummins Emissions Family):	HCEXL060.AAD (D593)

**Engine Information:**

Model:	QSK60 / QSK60-G / QSK60-G6 NR2	Bore:	6.25 in. (159 mm)
Engine Nameplate HP:	2922	Stroke:	7.48 in. (190 mm)
Type:	4 Cycle, 60°V, 16 Cylinder Diesel	Displacement:	3673 cu. in. (60.2 liters)
Aspiration:	Turbocharged and CAC	Compression Ratio:	14.5:1
Emission Control Device:	Electronic Control	Exhaust Stack Diameter:	2 - 14 in.

**Diesel Fuel Emission Limits**

**D2 Cycle Exhaust Emissions**

	Grams per BHP-hr			Grams per kWm-hr		
	<u>NOx + NMHC</u>	<u>CO</u>	<u>PM</u>	<u>NOx + NMHC</u>	<u>CO</u>	<u>PM</u>
Test Results - Diesel Fuel (300-4000 ppm Sulfur)	4.2	0.7	0.10	5.6	1.0	0.14
EPA Emissions Limit	4.8	2.6	0.15	6.4	3.5	0.20
Test Results - CARB Diesel Fuel (<15 ppm Sulfur)	3.8	0.7	0.09	5.1	1.0	0.12
CARB Emissions Limit	4.8	2.6	0.15	6.4	3.5	0.20

The CARB emission values are based on CARB approved calculations for converting EPA (500 ppm) fuel to CARB (15 ppm) fuel.  
**Test Methods:** EPA/CARB Nonroad emissions recorded per 40CFR89 (ref. ISO8178-1) and weighted at load points prescribed in Subpart E, Appendix A for Constant Speed Engines (ref. ISO8178-4, D2)

**Diesel Fuel Specifications:** Cetane Number: 40-48. Reference: ASTM D975 No. 2-D.

**Reference Conditions:** Air Inlet Temperature: 25°C (77°F), Fuel Inlet Temperature: 40°C (104°F). Barometric Pressure: 100 kPa (29.53 in Hg), Humidity: 10.7 g/kg (75 grains H2O/lb) of dry air; required for NOx correction, Restrictions: Intake Restriction set to a maximum allowable limit for clean filter; Exhaust Back Pressure set to a maximum allowable limit.

Tests conducted using alternate test methods, instrumentation, fuel or reference conditions can yield different results.

Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may result in elevated emission levels.

# Attachment II

## Emissions Profiles



Permit #: S-1131-1204-0	Last Updated
Facility: CHEVRON USA INC	04/01/2017 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	1175.0	1.0	39.0	670.0	62.0
Daily Emis. Limit (lb/Day)	94.0	0.1	3.1	53.6	4.9
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	293.0	0.0	9.0	167.0	15.0
Q2:	294.0	0.0	10.0	167.0	15.0
Q3:	294.0	0.0	10.0	168.0	16.0
Q4:	294.0	1.0	10.0	168.0	16.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio	1.5				
Quarterly Offset Amounts (lb/Qtr)					
Q1:	440.0				
Q2:	441.0				
Q3:	441.0				
Q4:	441.0				

# Attachment III

BACT Guideline

San Joaquin Valley  
Unified Air Pollution Control District

**Best Available Control Technology (BACT) Guideline 3.1.1\***

Last Update: 9/10/2013

**Emergency Diesel IC engine**

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	Latest EPA Tier Certification level for applicable horsepower range*		
SOX	Very low sulfur diesel fuel (15 ppmw sulfur or less)		
PM10	0.15 g/bhp-hr or the Latest EPA Tier Certification level for applicable horsepower range, whichever is more stringent. (ATCM)		
NOX	Latest EPA Tier Certification level for applicable horsepower range*		
CO	Latest EPA Tier Certification level for applicable horsepower range*		

\*Note: for emergency engines 50 <= bhp < 75, Tier 4 Interim certification is the requirement; for emergency engines 75 <= bhp < 750, Tier 3 certification is the requirement; for emergency engines => 750 bhp, Tier 2 certification is the requirement.

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**

# Attachment IV

## BACT Analysis

### Top Down BACT Analysis for the IC Engine

BACT Guideline 3.1.1 (September 10, 2013) applies to emergency diesel IC engines. In accordance with the District BACT policy, information from that Guideline will be utilized without further analysis.

#### 1. BACT Analysis for NO<sub>x</sub>, VOC, and CO Emissions:

##### a. Step 1 - Identify all control technologies

BACT Guideline 3.1.1 identifies only the following option:

- *Latest EPA Tier Certification level for applicable horsepower range*

To determine the latest applicable Tier level, the following EPA and state regulations were consulted:

- 40 CFR Part 89 – Control of Emissions from New and In-Use Nonroad Compression – Ignition Engines
- 40 CFR Part 1039 – Control of Emissions from New and In-Use Nonroad Compression-Ignition Engines
- Title 17 CCR, Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines

40 CFR Parts 89 and 1039, which apply only to nonroad engines, do not directly apply because the proposed emergency engine does not meet the definition of a nonroad engine. Therefore, only Title 17 CCR, Section 93115 applies directly to the proposed emergency engine.

Title 17 CCR, Section 93115.6(a)(3)(A) (CARB stationary diesel engine ATCM) applies to emergency standby diesel-fired engines and requires that such engines be certified to the emission levels in Table 1 (below).

Maximum Engine Power	Tier	Model Year(s)	PM	NMHC+NOx	CO
50 ≤ HP < 75 (37 ≤ kW < 56)	2	2007	0.15 (0.20)	5.6 (7.5) 3.5 (4.7)	3.7 (5.0)
	4i	2008+			
75 ≤ HP < 100 (56 ≤ kW < 75)	2	2007	0.15 (0.20)	5.6 (7.5) 3.5 (4.7)	3.7 (5.0)
	3	2008+			
100 ≤ HP < 175 (75 ≤ kW < 130)	3	2007	0.15 (0.20)	3.0 (4.0)	3.7 (5.0)
		2008+			
175 ≤ HP < 300 (130 ≤ kW < 225)	3	2007	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)
		2008+			
300 ≤ HP < 600 (225 ≤ kW < 450)	3	2007	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)
		2008+			
600 ≤ HP ≤ 750 (450 ≤ kW ≤ 560)	3	2007	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)
		2008+			
HP > 750 (kW > 560)	2	2007	0.15 (0.20)	4.8 (6.4)	2.6 (3.5)
		2008+			

Therefore, the most stringent applicable emission standards are those listed in the CARB ATCM (Table 1).

For IC engines rated greater than or equal to 50 hp and less than 75 hp, the highest Tier required is Tier 4i. For IC engines rated greater than or equal to 75 hp and less than 750 hp, the highest Tier required is Tier 3. For engines rated equal to or greater than 750 hp, the highest Tier required is Tier 2.

Also, please note that neither the state ATCM nor the Code of Federal Regulations require the installation of IC engines meeting a higher Tier standard than those listed above for emergency applications, due to concerns regarding the effectiveness of the exhaust emissions controls during periods of short-term operation (such as testing operational readiness of an emergency engine).

The proposed engine is rated at 2923 hp. Therefore, the applicable control technology option is EPA Tier 2 certification.

**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 NO<sub>x</sub> will be the use of an EPA Tier 2 certified engine. The applicant is proposing such a unit. Therefore, BACT will be satisfied.

Attachment V  
HRA/AAQA

## San Joaquin Valley Air Pollution Control District Risk Management Review

To: Richard Edgehill – Permit Services  
 From: Seth Lane – Technical Services  
 Date: March 27, 2017  
 Facility Name: Chevron USA Inc.  
 Location: NW Section 10, T29S, R28E, Bakersfield  
 Application #(s): S-1131-1204-0  
 Project #: S-1171052

### A. RMR SUMMARY

RMR Summary						
Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required?	Special Permit Requirements?
Unit 1204 (2922 BHP DICE)	0.99	N/A <sup>1</sup>	0.00	1.34E-07	No	Yes
Project Totals	0.99	N/A <sup>1</sup>	0.0	1.34E-07		
Facility Totals	>1	N/A <sup>1</sup>	0.56	9.73E-06		

<sup>1</sup>Acute and Chronic Hazard Indices were not calculated since there is no risk factor or the risk factor is so low that it has been determined to be insignificant for this type of unit.

### Proposed Permit Requirements

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

#### Unit # 1204-0

1. The PM10 emissions rate shall not exceed 0.15 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 is limited to 4 hours per day and 40 hours per year of operation.



**B. RMR REPORT**

**I. Project Description**

Technical Services received a request on March 20, 2017, to perform an Ambient Air Quality Analysis and a Risk Management Review for a 2922 hp diesel-fired limited-life black start IC engine.

**II. Analysis**

Toxic emissions for this proposed unit were calculated and provided by the processing engineer, and input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). Prioritization for this unit was not conducted since it has been determined that all diesel-fired IC engines will result in a prioritization score greater than 1.0. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required. The AERMOD model was used, with the parameters outlined below and meteorological data for 2010-2014 from Bakersfield to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

<b>Analysis Parameters Unit 1204-0</b>			
<b>Source Type</b>	Point	<b>Location Type</b>	Rural
<b>Stack Height (m)</b>	3.99	<b>Closest Receptor (m)</b>	26
<b>Stack Diameter. (m)</b>	0.49	<b>Type of Receptor</b>	Business
<b>Stack Exit Velocity (m/s)</b>	34.10	<b>Max Hours per Year</b>	40
<b>Stack Exit Temp. (°K)</b>	746.33	<b>Fuel Type</b>	DIESEL
<b>PM10 Emissions (lb/hr)</b>	0.98	<b>PM10 Emissions (lb/yr)</b>	39

Technical Services performed modeling for criteria pollutants CO, NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>10</sub> with the emission rates below:

<b>Unit #</b>	<b>NO<sub>x</sub> (Lbs.)</b>		<b>SO<sub>x</sub> (Lbs.)</b>		<b>CO (Lbs.)</b>		<b>PM<sub>10</sub> (Lbs.)</b>	
	Hr.	Yr.	Hr.	Yr.	Hr.	Yr.	Hr.	Yr.
<b>1204-0</b>	29.4	1,180	0.03	1	16.8	0	0	39

The results from the Criteria Pollutant Modeling are as follows:

**Criteria Pollutant Modeling Results\***

	Background Site	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Bakersfield – S. Union Ave (2015)	Pass	X	Pass	X	X
NO <sub>x</sub>	Bakersfield – California Ave (2015)	Pass <sup>1</sup>	X	X	X	Pass
SO <sub>x</sub>	Fresno – Garland (2015)	Pass	Pass	X	Pass	Pass
PM <sub>10</sub>	Oildale (2015)	X	X	X	Pass <sup>2</sup>	Pass <sup>2</sup>
PM <sub>2.5</sub>	Bakersfield – California Ave (2015)	X	X	X	Pass <sup>3</sup>	Pass <sup>3</sup>

\*Results were taken from the attached PSD spreadsheet.

<sup>1</sup>The Ozone Limiting Method (OLM) was used in accordance with the District's *Assessment of Non-Regulatory Options in AERMOD – Specifically OLM and PVMRM*.

<sup>2</sup>The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

<sup>3</sup>The court has vacated EPA's PM<sub>2.5</sub> SILs. Until such time as new SIL values are approved, the District will use the corresponding PM<sub>10</sub> SILs for both PM<sub>10</sub> and PM<sub>2.5</sub> analyses.

### III. Conclusion

The acute and chronic indices are below 1.0 and the cancer risk factor associated with the project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit requirements listed on page 1 of this report must be included for this proposed unit.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

### IV. Attachments

- A. RMR request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Prioritization score w/ toxic emissions summary
- D. Facility Summary

# Attachment VI

Title V Compliance Certification and Statewide Compliance Forms



Donald Puckett  
General Manager - Operations

San Joaquin Valley SBU  
Chevron North America  
Exploration and Production  
P. O. Box 1392

January 13, 2015

Mr. Seyed Sadredin  
San Joaquin Valley Air Pollution Control District  
34946 Flyover Court  
Bakersfield, CA 93308

**RE: Statewide Compliance Certification**

Dear Mr. Sadredin:

As required under District Rule 2201, Subsection 4.15.2 and Section 173(a)(3) of the Clean Air Act, 42 U.S.C. Section 7503, Chevron U.S.A. Inc. hereby submits this letter of certification regarding statewide compliance as of this date.

Based on reasonable inquiry and to the best of my knowledge and belief, the major stationary sources, as defined in the jurisdiction where the facilities are located, that are owned or operated by Chevron U.S.A. Inc. in the State of California as listed below are subject to emission limitations and are in compliance or on a schedule for compliance with all applicable emission limitations and standards under the Clean Air Act:

- El Segundo Refinery
- El Segundo Marketing Terminal
- Richmond Refinery
- Banta Marketing Terminal
- Huntington Beach Marketing Terminal
- Montebello Marketing Terminal
- Sacramento Marketing Terminal
- Van Nuys Marketing Terminal
- Cross Valley Carneras Gas Compressor Facility (Kern County)
- Kettleman City Pump Station (Kings County)
- 27G Pump Station (Kern County)
  
- San Joaquin Valley Business Unit:
  - Fresno County Heavy Oil Source (Coalinga)
  - Fresno County Natural Gas Source (Coalinga)
  - Kern County Central Heavy Oil Source (Kern River)
  - Kern County Western Heavy Oil Source (Midway Sunset & Cymric)
  - Kern County Western Light Oil Source (Midway Sunset, Cymric & Lost Hills)
  - Kern County Western Gas Source (Cymric & Lost Hills)
  - San Ardo (Monterey County)

**San Joaquin Valley  
Unified Air Pollution Control District**

**TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM**

**I. TYPE OF PERMIT ACTION (Check appropriate box)**

- SIGNIFICANT PERMIT MODIFICATION                       ADMINISTRATIVE AMENDMENT  
 MINOR PERMIT MODIFICATION

COMPANY NAME: <b>CHEVRON U.S.A. INC.</b>	FACILITY ID: <b>S-1131</b>
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: <b>CHEVRON U.S.A. INC.</b>	
3. Agent to the Owner: <b>N/A</b>	

**II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):**

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:



Signature of Responsible Official

3/27/17  
Date

**Timothy Nishikubo**

Name of Responsible Official (please print)

Blackstart Generator for SEKR Cogent

**Operations Supervisor**

Title of Responsible Official (please print)

**ATTACHMENT VII**  
Draft ATC

6. 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] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO-approved alternative. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. {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]
10. IC engine shall not be operated longer than 4.0 hr/day. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Total operation of the IC engine associated with this permit unit shall not exceed 40 hours without prior District approval through issuance of an Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
12. NOx emissions (referenced as NO2) shall not exceed 4.56 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
13. VOC emissions (referenced as methane) shall not exceed 0.24 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
14. CO emissions shall not exceed 2.6 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The PM10 emissions rate from the engine shall not exceed 0.15 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
16. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
17. During periods of operation, 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] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the daily hours and cumulative hours of operation on a 12 month rolling average. These records shall be updated at least monthly. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
19. 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. [District Rule 4702] Federally Enforceable Through Title V Permit
20. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

PERMIT NO: S-1131-1204-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: CHEVRON USA INC  
MAILING ADDRESS: PO BOX 1392  
BAKERSFIELD, CA 93302

LOCATION: HEAVY OIL CENTRAL  
KERN COUNTY, CA

SECTION: NW 10 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:  
2922 HP EPA TIER 2 DIESEL-FIRED LIMITED-LIFE IC ENGINE

**CONDITIONS**

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOX emission reduction credits for the following quantity of emissions: 1st quarter - 440 lb, 2nd quarter - 441 lb, 3rd quarter - 441 lb, and fourth quarter - 441 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers C-1147-2, C-1372-2, C-966-2, S-1325-2, and S-496-2 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
5. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

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.

Seyed Sadredin, Executive Director, APCO

Arnaud Marjollet, Director of Permit Services

9-1131-1204-0: Apr 17 2017 8:51AM - EDGEHILL - Joint Inspection NOT Required